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Satern

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(54) **WIRE STRIPPING AND CUTTING TOOL**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 8 days.

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(51) **Int. Cl.**
H02G 1/12 (2006.01)

(52) **U.S. Cl.**
CPC ***H02G 1/1204*** (2013.01); ***H02G 1/1202*** (2013.01); ***H02G 1/1209*** (2013.01); ***H02G 1/1214*** (2013.01)

(58) **Field of Classification Search**
CPC H02G 1/12; H02G 1/1202; H02G 1/1204; H02G 1/1207; H02G 1/1209; H02G 1/1214; B25F 1/00
USPC 30/90.1, 90.2, 90.6–90.8, 91.1, 91.2; 81/9.4, 9.44; 7/107
See application file for complete search history.

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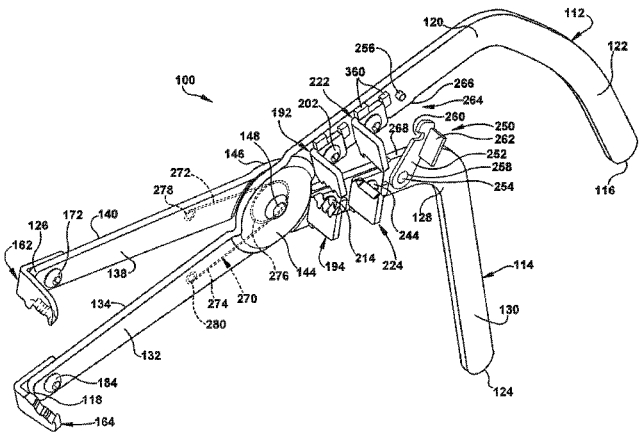
(57) **ABSTRACT**

A wire stripping and cutting tool comprises two pivotally joined elongated members. First, second, and third pairs of cutting members are mounted on the elongated members. The cutting surfaces of the first pair of cutting members are shaped and dimensioned to cut through the outer sheath of sheathed electrical cable without cutting an electrical conductor within the sheath or the individual conductor insulation covering the conductor. The cutting surfaces of the second pair of cutting members are shaped and dimensioned to cut through the sheath and individual conductor insulation without cutting the conductor. The cutting surfaces of the third pair of cutting members are shaped and dimensioned to cut through the sheath, the individual conductor insulation, and the conductor. If no outer sheath is present, a modified first pair of cutting members may function as guide members to align separate conductors for the second pair of cutting members.

9 Claims, 10 Drawing Sheets



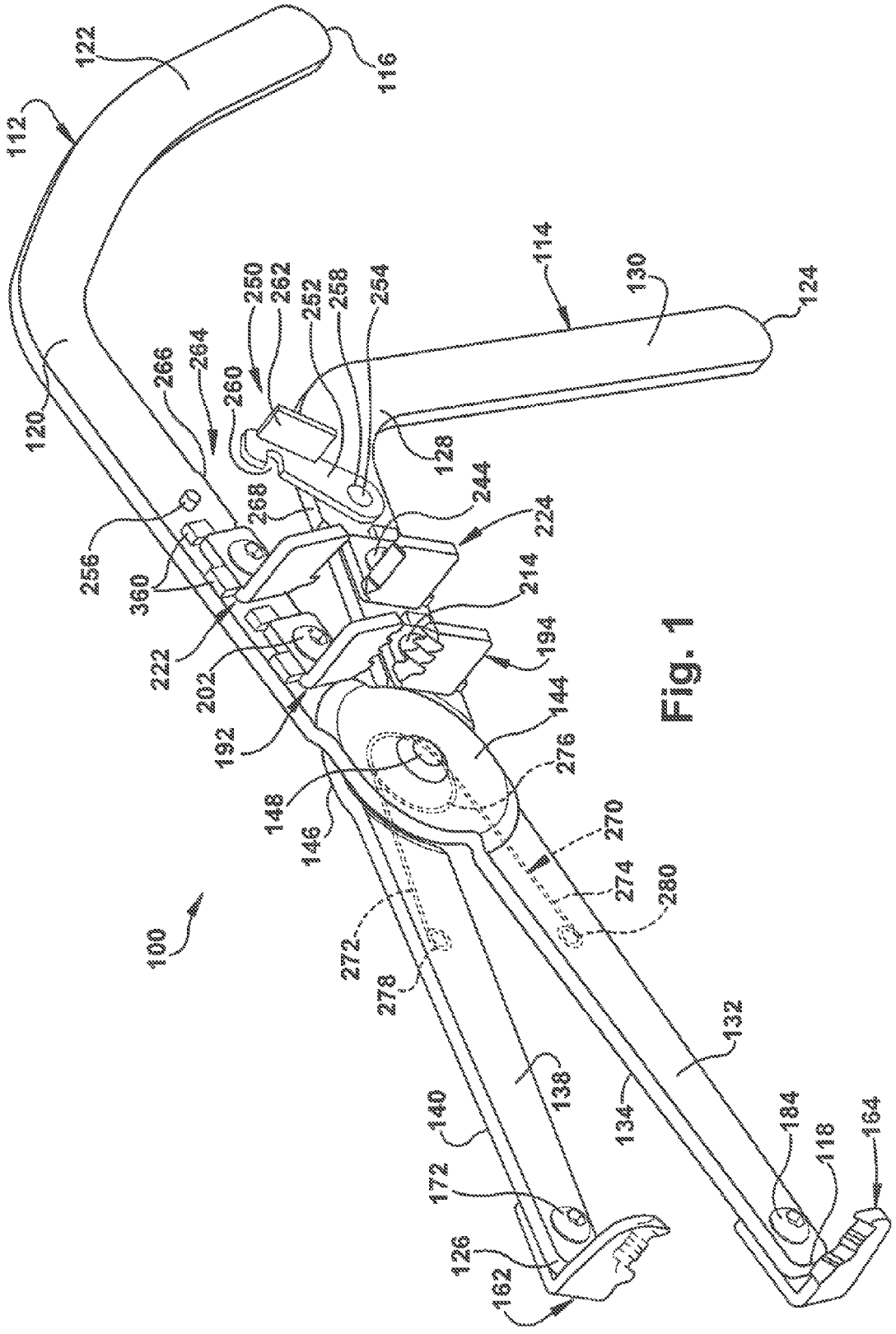

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Fig. 1

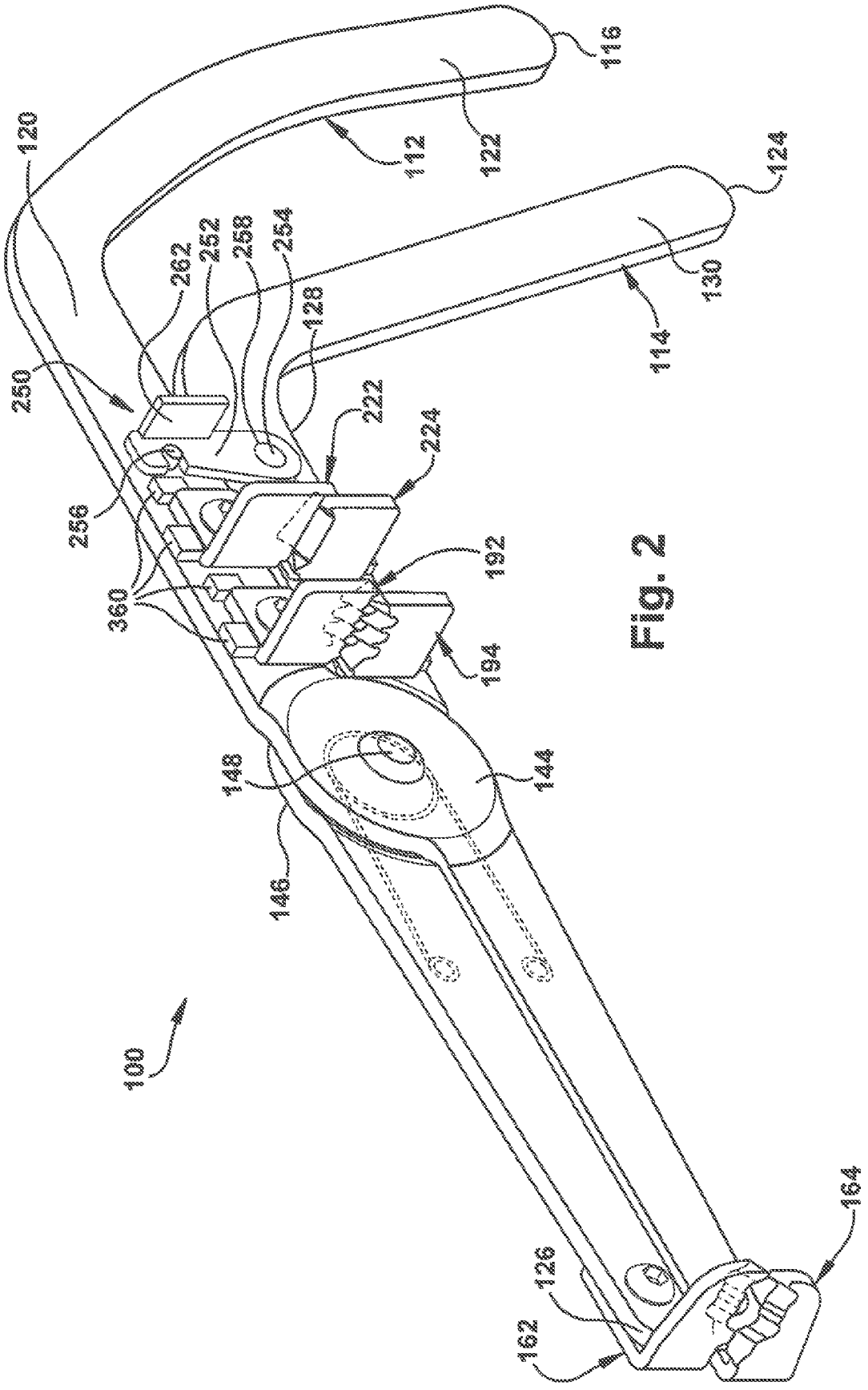
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Fig. 2

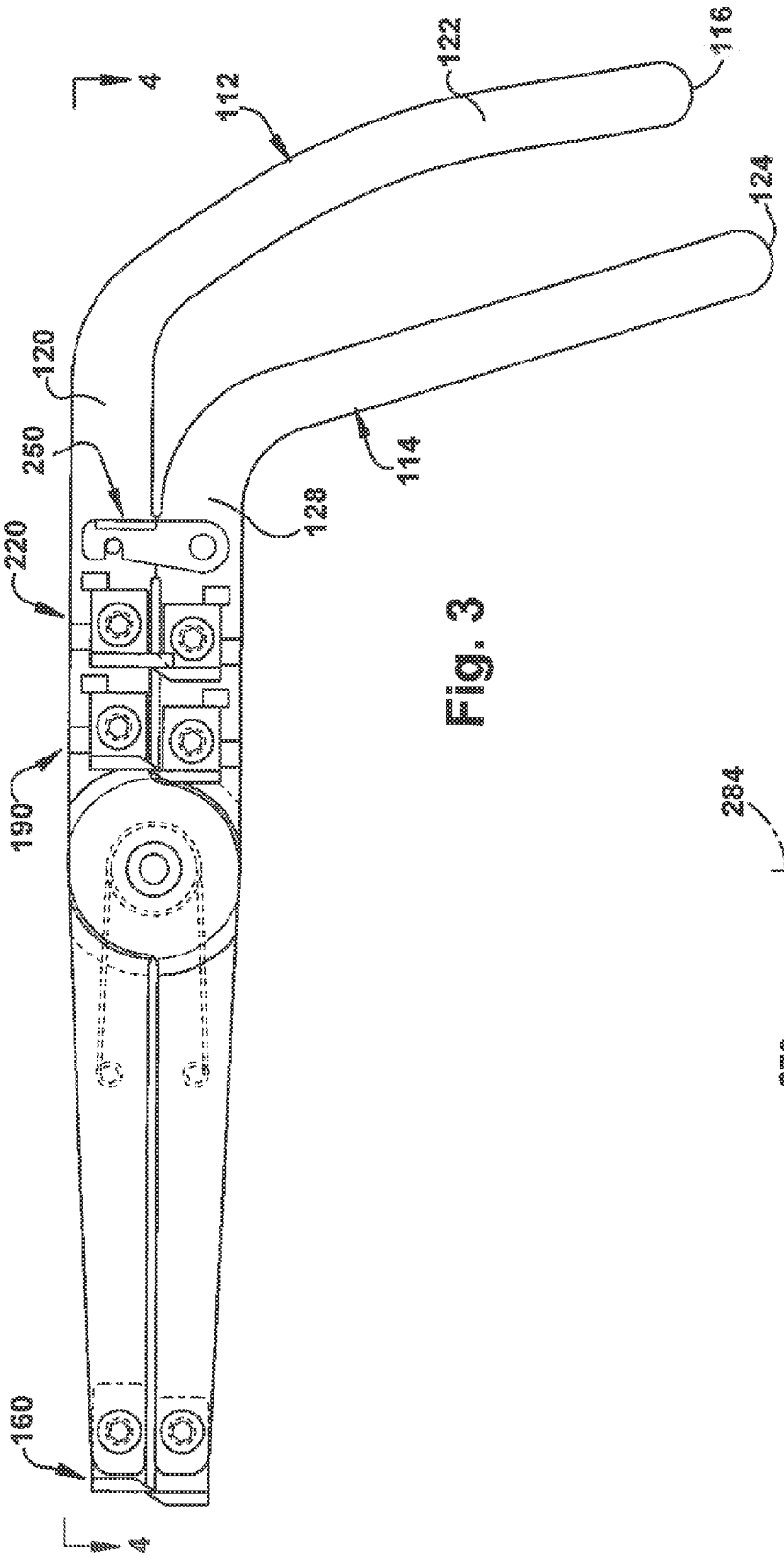
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Fig. 3

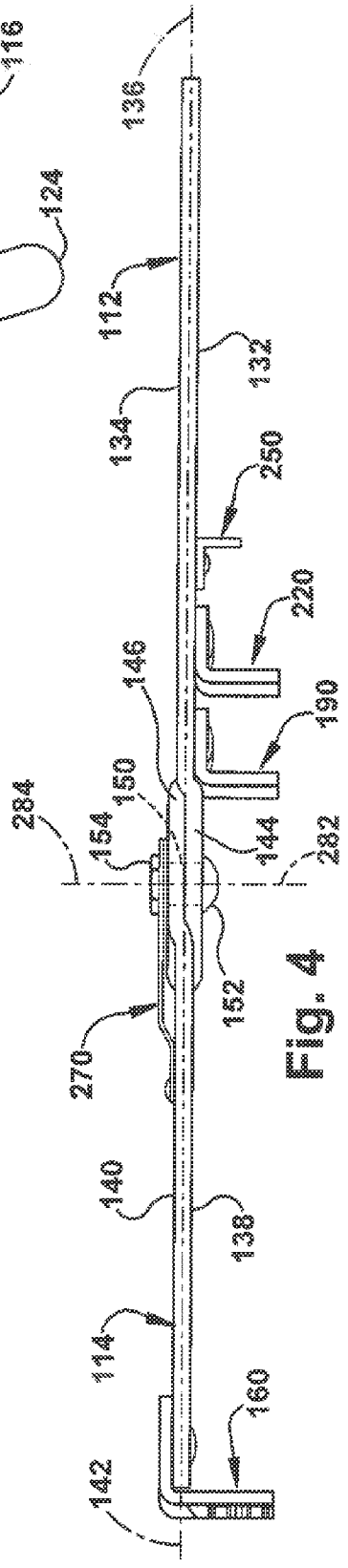
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Fig. 4

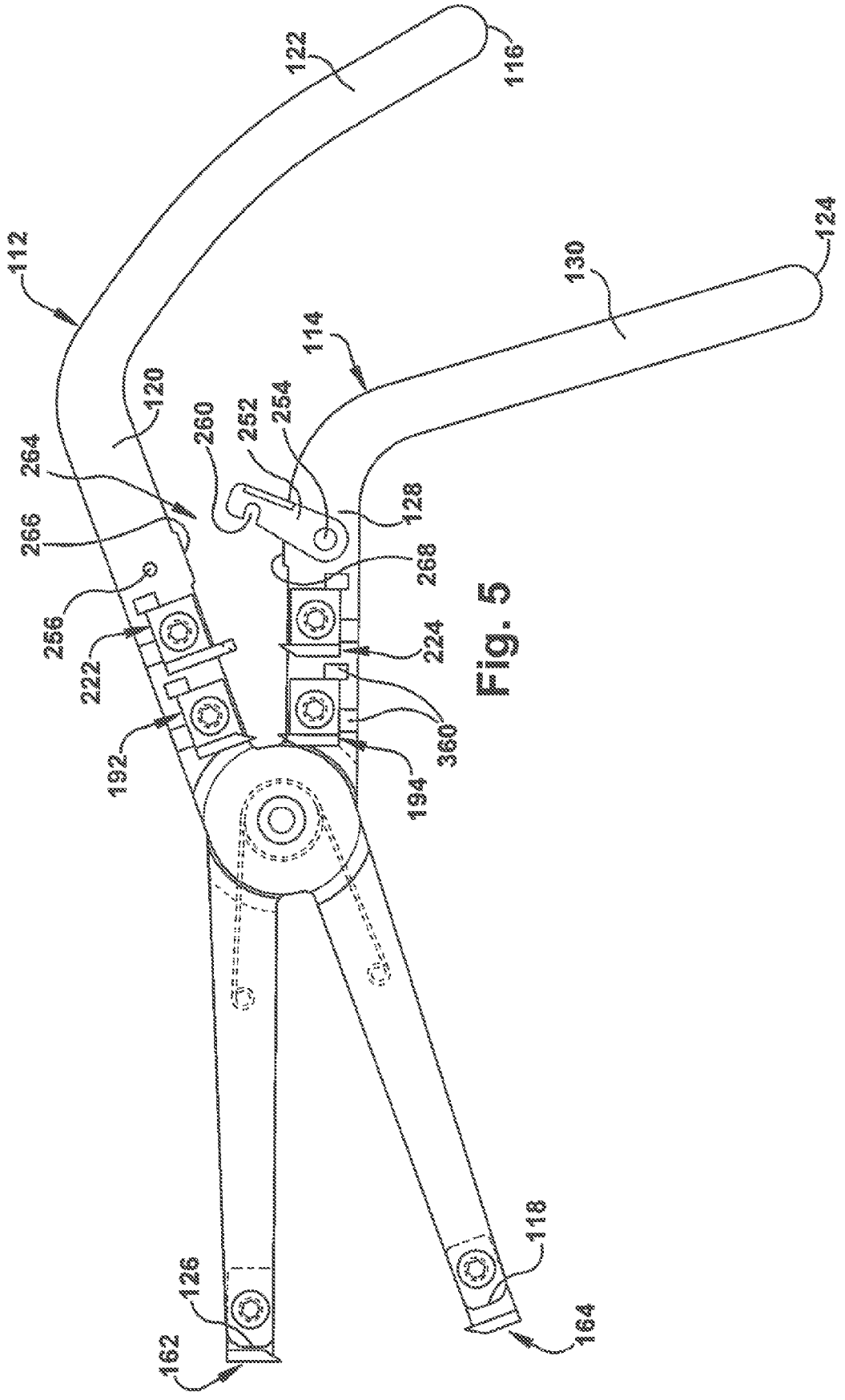
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Fig. 5

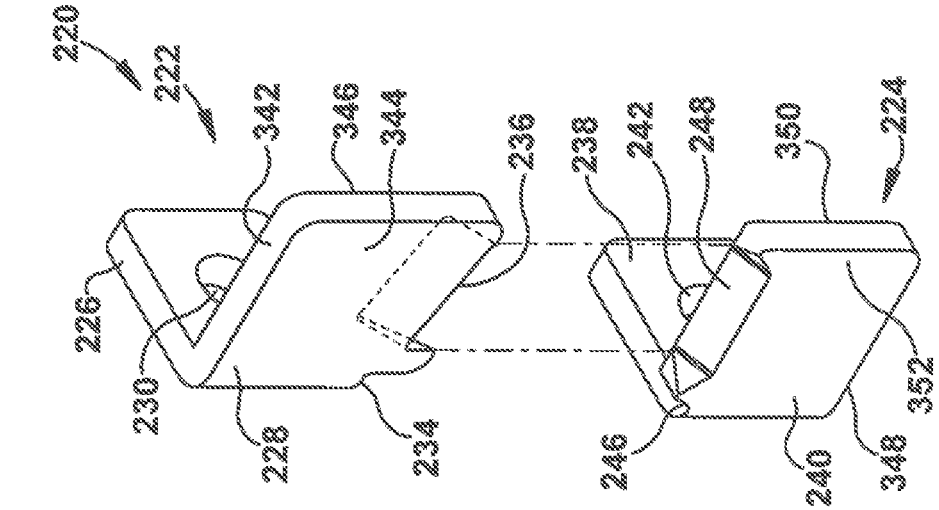


Fig. 8

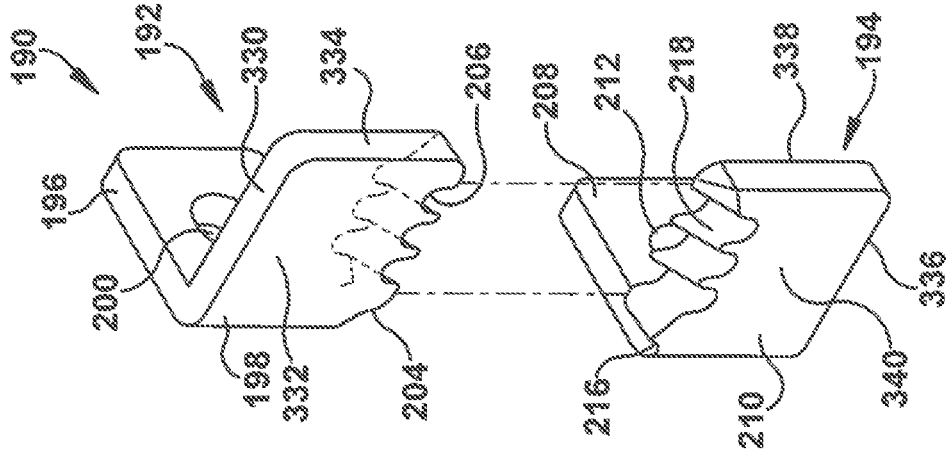
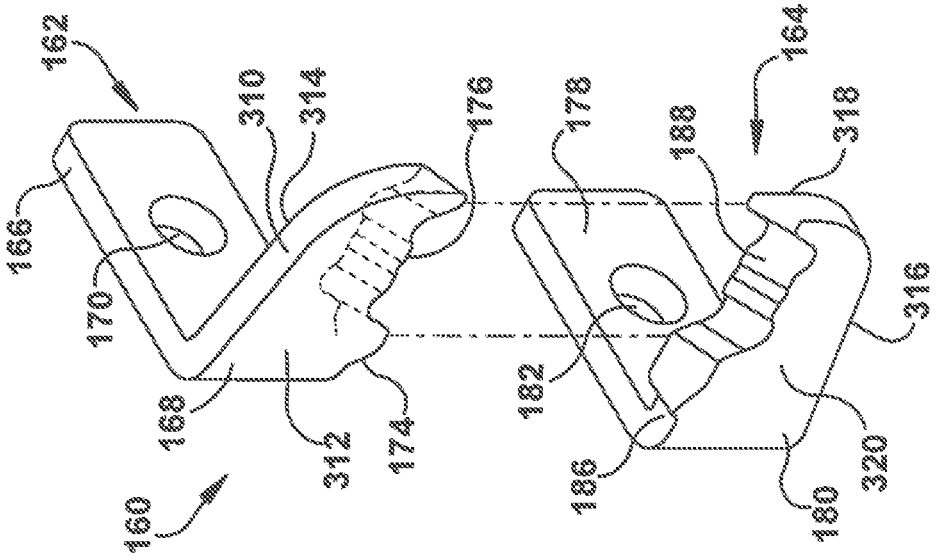


Fig. 7



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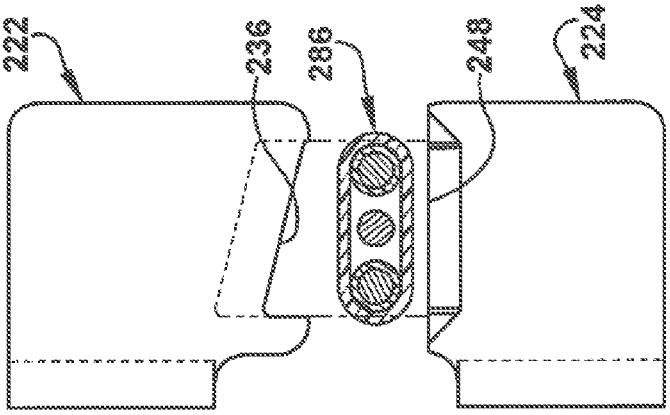

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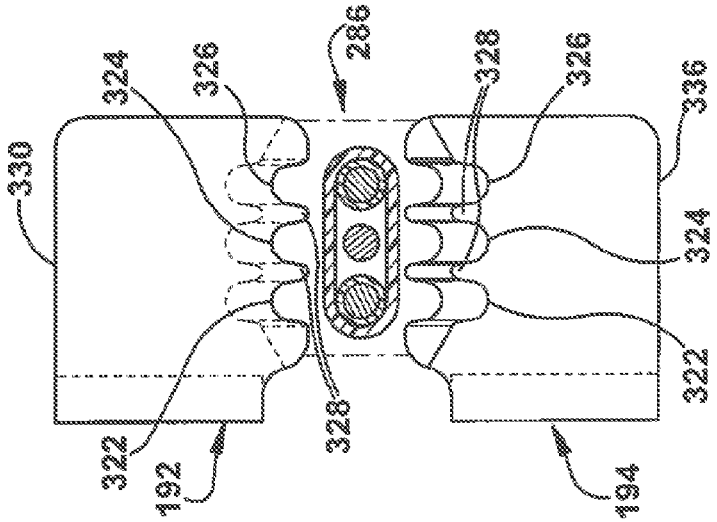

Fig. 10

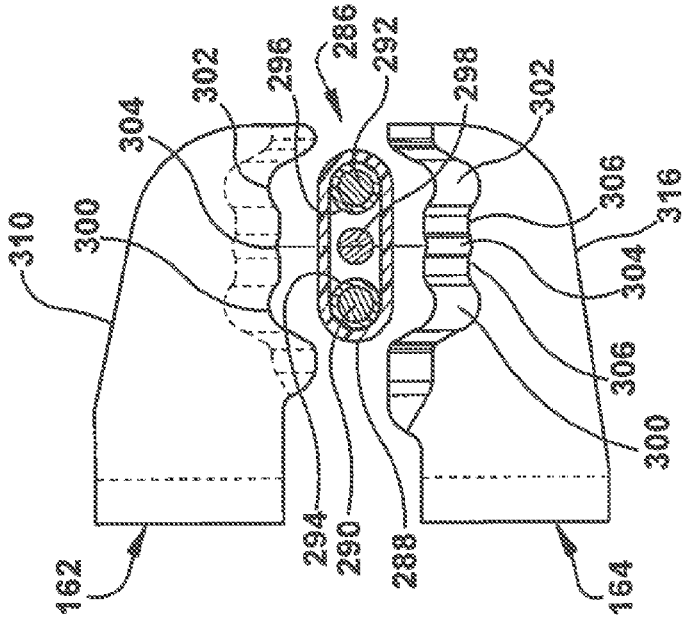

Fig. 9

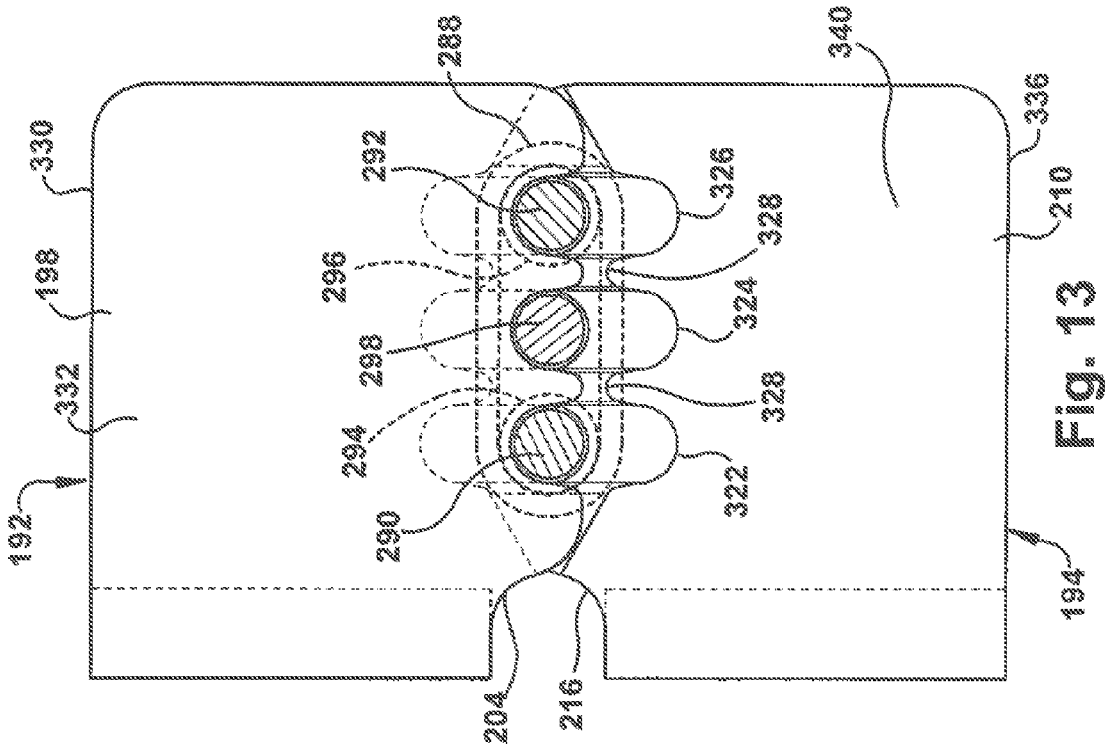
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Fig. 13

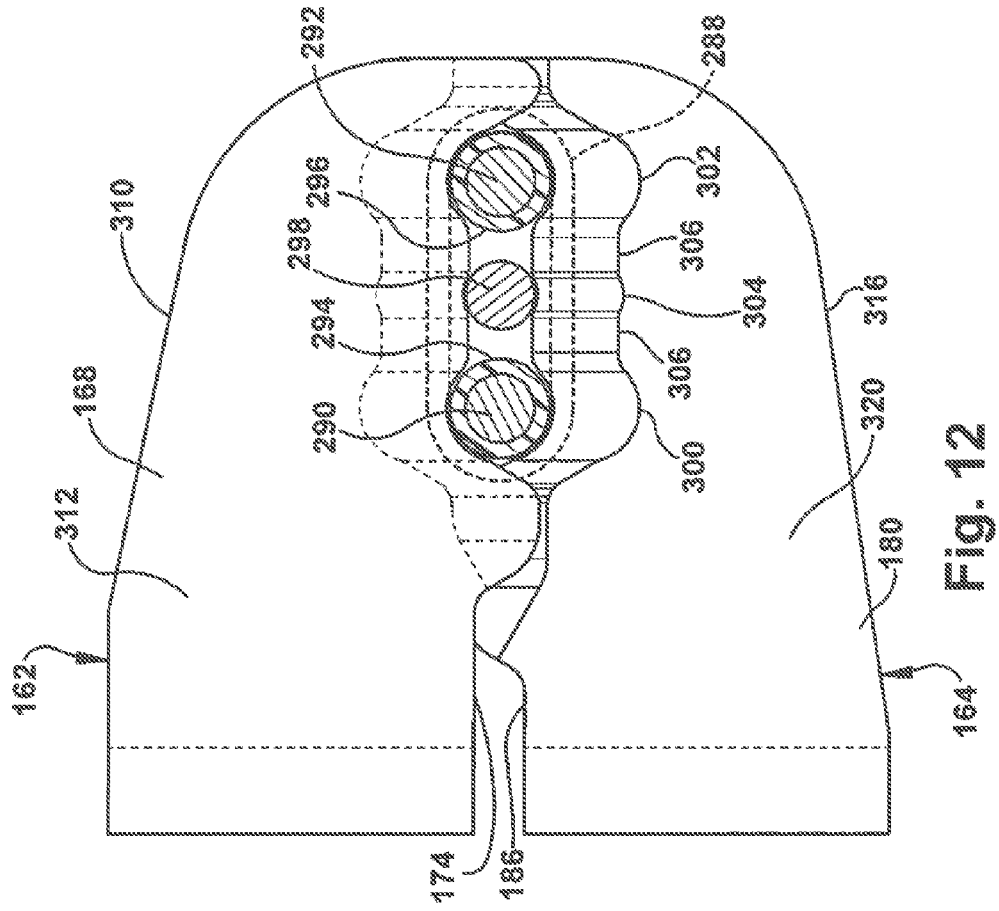
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Fig. 12

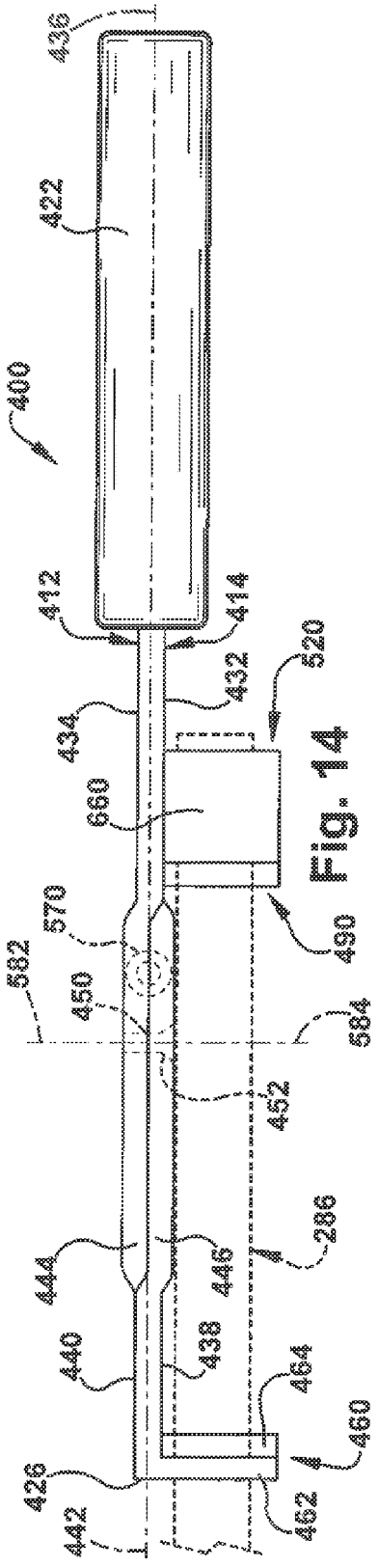
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Fig. 14

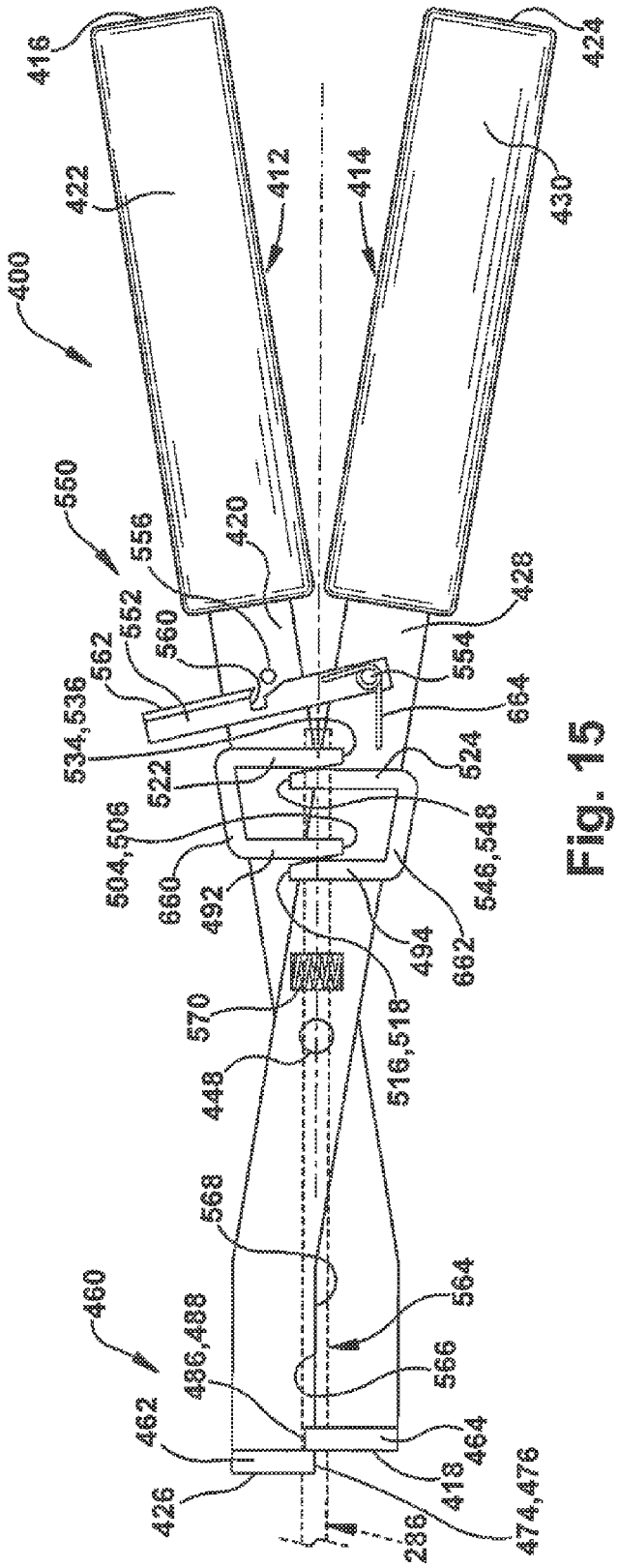
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Fig. 15

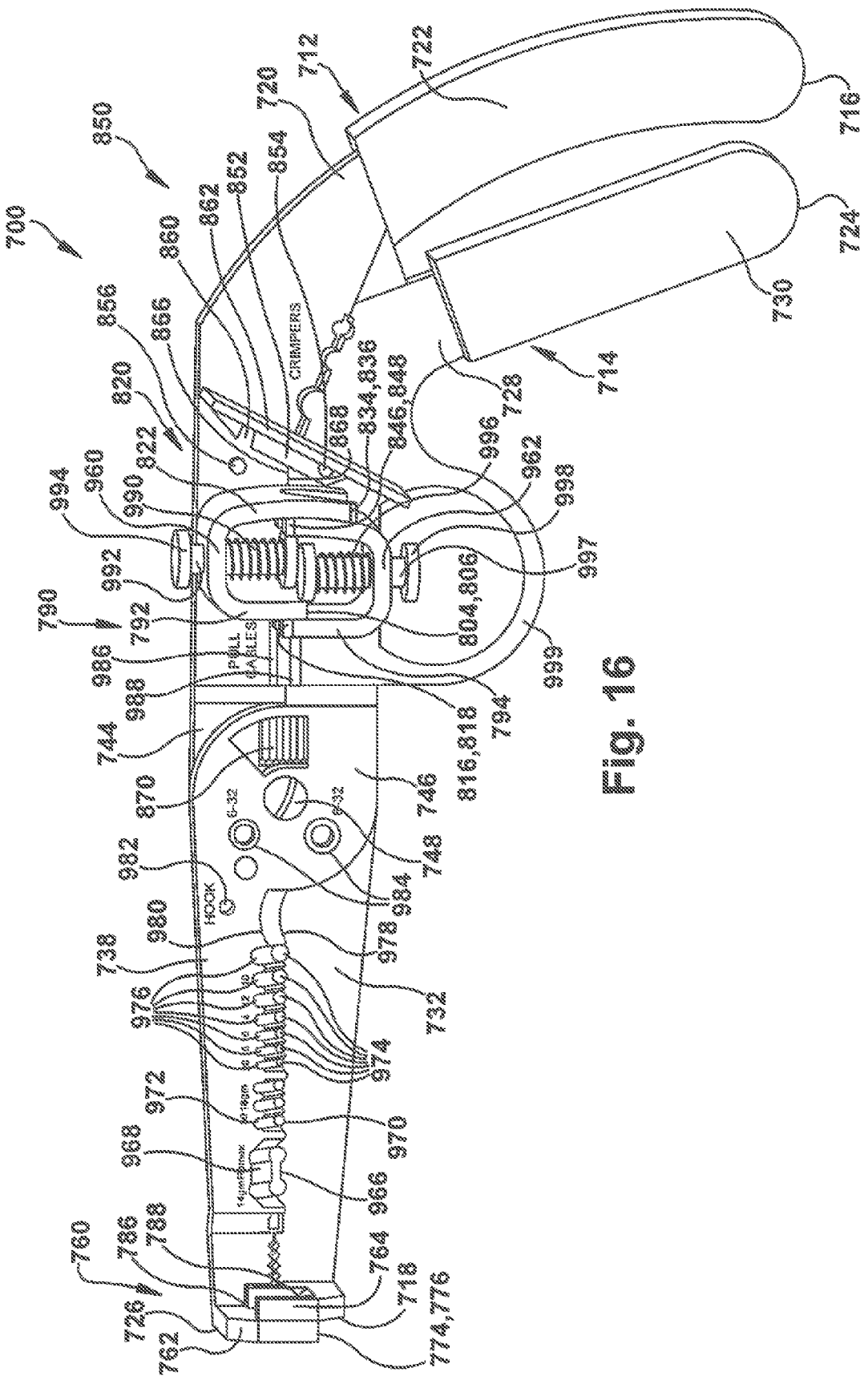
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Fig. 16

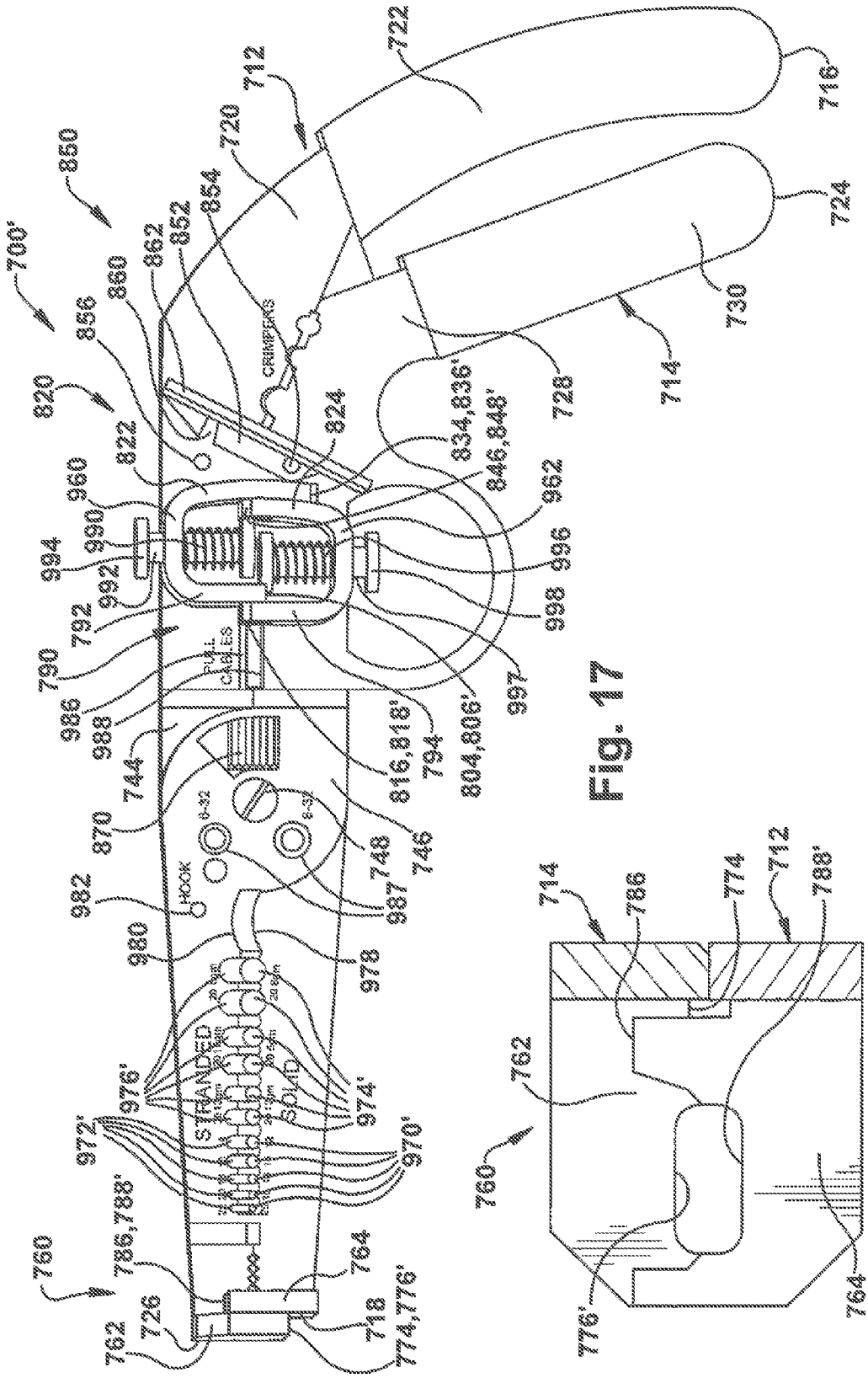

Fig. 17

Fig. 17A

WIRE STRIPPING AND CUTTING TOOL

RELATED APPLICATIONS

This application claims priority from U.S. Provisional Patent Application Ser. No. 61/982,527, filed 22 Apr. 2014. The subject matter of the aforementioned application is hereby incorporated by reference in its entirety.

FIELD OF THE INVENTION

The present invention relates to an electrical conductor stripping and cutting tool that comprises two pairs of cutting members located on opposite sides of a pivot axis and, more particularly, to such a stripping and cutting tool that comprises three pairs of cutting members for use with sheathed electrical conductors.

BACKGROUND OF THE INVENTION

Wiring for residential and light commercial construction in North America typically is a non-metallic sheathed cable. In such sheathed cable, an outer non-metallic sheath, generally formed from an electrically-insulating polyvinyl chloride material, surrounds multiple individual conductors, which are insulated from each other by insulation covering the individual conductors. One type of non-metallic sheathed cable includes two current-carrying conductors with individual insulation and an uninsulated or bare ground wire. For commercial construction other than light commercial construction, the current-carrying conductors and the ground wire all have individual conductor insulation and are typically protected from damage by being installed in a metal conduit or a rigid plastic conduit, rather than having a non-metallic outer sheath

Electricians using sheathed cable on a construction site need to be able to cut the outer sheath and strip a length of the outer sheath from the individual conductors without cutting, nicking, or otherwise damaging the individual conductors or the insulation for the individual conductors. In addition, after removing the outer sheath, the electricians need to be able to cut the insulation on the individual conductors and strip a length of insulation from each individual conductor without cutting, nicking, or otherwise damaging the individual conductors. Further, after removing the insulation from the individual conductors, the now-bare conductors and any ground wire need to be cut to an appropriate length for connection to an electrical outlet, junction box, or other electrical device. Similar considerations affect the use of conductors that have individual conductor insulation but that are not surrounded by an outer sheath.

Wire strippers or cutters for individual use (hand tools) are typically constructed to perform one task, such as cutting and stripping the outer sheath, at a time. A hand tool that could perform multiple tasks substantially simultaneously without moving or repositioning a length of sheathed cable or adjacent lengths of separate conductors would save time and effort for electricians.

SUMMARY OF THE INVENTION

The present invention is directed to an electrical conductor stripping and cutting tool that comprises two pairs of cutting members located on opposite sides of a pivot axis and more particularly, to such a stripping and cutting tool that comprises three pairs of cutting members for use with sheathed electrical conductors.

In accordance with an embodiment of the present invention, a tool is provided for stripping and cutting sheathed electrical cable. The cable includes an outer sheath surrounding at least one electrical conductor covered with individual conductor insulation. The tool comprises a first elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end to the distal end. The tool also comprises a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member. The second elongated member is joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other. A first pair of cutting members is mounted on the first and second elongated members. One of the first pair of cutting members is mounted on one of the first and second elongated members. The other of the first pair of cutting members is mounted on the other of the first and second elongated members. Each of the first pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the first pair of cutting members is presented toward the other cutting surface of the first pair of cutting members. The cutting surfaces of the first pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member moves toward the proximal end of the second elongated member. A second pair of cutting members is mounted on the first and second elongated members. One of the second pair of cutting members is mounted on one of the first and second elongated members. The other of the second pair of cutting members is mounted on the other of the first and second elongated members. Each of the second pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the second pair of cutting members is presented toward the other cutting surface of the second pair of cutting members. The cutting surfaces of the second pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member moves toward the proximal end of the second elongated member. A third pair of cutting members is mounted on the first and second elongated members. One of the third pair of cutting members is mounted on one of the first and second elongated members. The other of the third pair of cutting members is mounted on the other of the first and second elongated members. Each of the third pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the third pair of cutting members is presented toward the other cutting surface of the third pair of cutting members. The cutting surfaces of the third pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member moves toward the proximal end of the second elongated member. The cutting surfaces of the first pair of cutting members are shaped and dimensioned to cut through the outer sheath of

the sheathed electrical cable without cutting the individual conductor insulation covering the at least one electrical conductor and without cutting the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members. The cutting surfaces of the second pair of cutting members are shaped and dimensioned to cut through the outer sheath of the sheathed electrical cable and the individual conductor insulation covering the at least one electrical conductor without cutting the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members. The cutting surfaces of the third pair of cutting members are shaped and dimensioned to cut through (a) the outer sheath of the sheathed electrical cable, (b) the individual conductor insulation covering the at least one electrical conductor, and (c) the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members.

In accordance with another embodiment of the present invention, an electrical conductor stripping and cutting tool comprises a first elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end to the distal end. The tool also comprises a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member. The second elongated member is joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other. A first pair of cutting members is mounted on the first and second elongated members. One of the first pair of cutting members is mounted on the first elongated member such that the pivot axis is disposed between said one of the first pair of cutting members and the proximal end of the first elongated member. The other of the first pair of cutting members is mounted on the second elongated member such that the pivot axis is disposed between said other of the first pair of cutting members and the proximal end of the second elongated member. Each of the first pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the first pair of cutting members is presented toward the other cutting surface of the first pair of cutting members. The cutting surfaces of the first pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another. A second pair of cutting members is also mounted on the first and second elongated members. One of the second pair of cutting members is mounted on the first elongated member in a position between the proximal end of the first elongated member and the pivot axis. The other of the second pair of cutting members is mounted on the second elongated member in a position between the proximal end of the second elongated member and the pivot axis. Each of the second pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the second pair of cutting members is presented toward the other cutting surface of the second pair of cutting members. The cutting surfaces of the second pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another. The cutting surfaces of the first pair of cutting members are shaped and dimensioned to cut through material surrounding an electrical conductor without cutting the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members. The cutting surfaces of the second pair of cutting members are shaped and dimensioned to cut through material surrounding an electrical conductor and also cut through the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members.

In accordance with a further embodiment of the present invention, a tool for stripping and cutting a plurality of electrical conductors covered with individual conductor insulation comprises a first elongated member having a proximal end and a longitudinally opposite distal end. The tool also comprises a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member. The second elongated member is joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other. A pair of guide members is mounted on the first and second elongated members. One of the pair of guide members is mounted on one of the first and second elongated members. The other of the pair of guide members is mounted on the other of the first and second elongated members. Each of the pair of guide members has a guide surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each guide surface of the pair of guide members is presented toward the other guide surface of the pair of guide members. The guide surfaces of the pair of guide members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another. A first pair of cutting members is mounted on the first and second elongated members. One of the first pair of cutting members is mounted on one of the first and second elongated members. The other of the first pair of cutting members is mounted on the other of the first and second elongated members. Each of the first pair of cutting members has a rutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the first pair of cutting members is presented toward the other cutting surface of the first pair of cutting members. The cutting surfaces of the first pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another. A second pair of cutting members is also mounted on the first and second elongated members. One of the second pair of cutting members is mounted on one of the first and second elongated members. The other of the second pair of cutting members is mounted on the other of the first and second

elongated members. Each of the second pair of cutting members has a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member. Each cutting surface of the second pair of cutting members is presented toward the other cutting surface of the second pair of cutting members. The cutting surfaces of the second pair of cutting members move toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another. The cutting surfaces of the first pair of cutting members are shaped and dimensioned to cut through the individual conductor insulation covering each of the electrical conductors without cutting the electrical conductors when the electrical conductors extend longitudinally from a position between the pair of guide members to a position between the second pair of cutting members. The cutting surfaces of the second pair of cutting members are shaped and dimensioned to cut through the individual conductor insulation covering each of the electrical conductors and through the plurality of electrical conductors when the electrical conductors extend longitudinally from a position between the pair of guide members to a position between the second pair of cutting members. The guide surfaces of the pair of guide members are shaped and dimensioned to guide the electrical conductors into a predetermined orientation relative to one another as the electrical conductors are extended lengthwise between the guide surfaces. The predetermined orientation is such that the cutting surfaces of the first pair of cutting members will cut through the individual conductor insulation covering each of the electrical conductors without cutting the electrical conductors.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other features and advantages of the present invention will become apparent to one skilled in the art upon consideration of the following description of the invention and the accompanying drawings, in which:

FIG. **1** is a perspective view of a first embodiment of a wire stripping and cutting tool accordance with the present invention in an open condition;

FIG. **2** is a perspective view of the wire stripping and cutting tool of FIG. **1** in a closed condition;

FIG. **3** is a side view of the wire stripping and cutting tool of FIG. **1** in a closed condition;

FIG. **4** is a top view of the wire stripping and cutting tool of FIG. **3** taken along view line **4-4** of FIG. **3**;

FIG. **5** is a side view of the wire stripping and cutting tool of FIG. **1** in an open condition;

FIG. **6** is a perspective view of one set of cutting members of the wire stripping and cutting tool of FIGS. **1** and **2**;

FIG. **7** is a perspective view of another set of cutting members of the wire stripping and cutting tool of FIGS. **1** and **2**;

FIG. **8** is a perspective view of a further set of cutting members of the wire stripping and cutting tool of FIGS. **1** and **2**;

FIG. **9** is an end view of the cutting members of FIG. **6** in an open condition;

FIG. **10** is an end view of the cutting members of FIG. **7** in an open condition;

FIG. **11** is an end view of the cutting members of FIG. **8** in an open condition;

FIG. **12** is an end view of the cutting members of FIG. **6** in a closed condition;

FIG. **13** is an end view of the cutting members of FIG. **7** in a closed condition;

FIG. **14** is a top view of a second embodiment of a wire stripping and cutting tool accordance with the present invention in a closed condition;

FIG. **15** is a side view of the wire stripping and cutting tool of FIG. **14** in a closed condition;

FIG. **16** is a perspective view of a third embodiment of a wire stripping and cutting tool accordance with the present invention. in a closed condition;

FIG. **17** is a perspective view of a modified version of the wire stripping and cutting tool of FIG. **16** in a closed condition; and

FIG. **17**A is an enlarged view of a portion of the wire stripping and cutting tool of FIG. **17**.

DETAILED DESCRIPTION

FIGS. **1** through **13** illustrate a wire stripping and cutting tool **100**, in accordance with an example of the present invention. The wire stripping and cutting tool **100** includes a first elongated member or first arm **112** and a second elongated member or second arm **114**. The first arm **112** has a proximal end **116**, which is closer to the user of the wire stripping and cutting tool **100**, and an opposite distal end **118**, which is farther from the user of the wire cutting and stripping tool. The length or longitudinal extent of the first arm **112** extends from the proximal end **116** to the distal end **118**. As shown, a proximal portion **120** of the first arm **112** extends for approximately two-thirds of the length of the first arm from the proximal end **116**. Approximately half-way along its length, the proximal portion **120** is bent at about a 75° angle, which provides a handle **122** for the first arm **112** adjacent its proximal end **116**. In a similar manner, the second arm **114** has a proximal end **124**, which is closer to the user of the wire stripping and cutting tool **100**, and an opposite distal end **126**, which is farther from the user of the wire cutting and stripping tool. The length or longitudinal extent of the second arm **114** extends from the proximal end **124** to the distal end **126**. As shown, a proximal portion **128** of the second arm **114** extends for approximately two-thirds of the length of the second arm from the proximal end **124**. Approximately half-way along its length, the proximal portion **128** is bent at about a 75° angle, which provides a handle **130** for the second arm **114** adjacent its proximal end **124**.

As best seen in FIGS. **3** and **4**, each of the first and second arms **112** and **114** is substantially flat and lies in a plane for a majority of its length. More particularly, the first arm **112** has a first major side surface **132** presented in one direction and a substantially parallel second major side surface **134** presented in an opposite direction. Extending from the proximal end **116** to the distal end **118** of the first arm **112** and generally between the first and second major side surfaces **132** and **134** is a longitudinal axis **136** (FIG. **4**). Likewise, the second arm **114** has a first major side surface **138** presented in one direction and a substantially parallel second major side surface **140** presented in an opposite direction. Extending from the proximal end **124** to the distal end **126** of the second arm **114** and generally between the first and second major side surfaces **138** and **140** is a longitudinal axis **142** (FIG. **4**). With the foregoing configuration, each of the first and second arms **112** and **114** may be stamped from sheet metal. At a distance of approximately one-third of the length, of the first arm **112** from its distal end

118, a substantially circular, disc-like offset portion 144 is stamped or otherwise formed in the first arm 112. A similar substantially circular, disc-like offset portion 146 is stamped or otherwise formed at approximately the same position along the length of the second arm 114. The offset portions 144 and 146 have complementary shapes so that the first and second arms 112 and 114 can be placed side by side at the offset portions 144 and 146, but otherwise lie in the same plane, as can be seen in FIG. 4. As also can be seen in FIG. 4, the longitudinal axes 136 and 142, which are coaxial when the offset portions 144 and 146 are side by side, do not extend between their corresponding first and second major side surfaces 132, 134 and 138, 140, respectively, in the offset portions.

In the center of each offset portion 144 and 146 is an opening (not shown) that passes through the corresponding first or second arm 112, 114 from the first major side surface 132, 138 to the second major side surface 134, 140. When the first and second arms 112 and 114 are placed side by side at the offset portions 144 and 146, the openings (not shown) are axially aligned. A fastener 148 is received in the aligned openings. The fastener 148 has a shaft 150 (FIG. 4) received in the aligned openings (not shown). At opposite ends of the shaft 150, the fastener 148 has enlargements 152 and 154 that are too large to pass through the aligned openings (not shown) in the offset portions 144 and 146. The enlargements 152 and 154 may be permanently fixed to the shaft 150, as by being formed in one piece with the shaft, or may be removable from the shaft, as by being nuts engaged with a threaded portion of the shaft. The fastener 148 may thus be a rivet, if it is desired to join the first arm 112 to the second arm 114 in a permanent or nonremovable manner, or may a bolt with a removably attached nut, if it is desired to join the first arm to the second arm in a manner that can be undone as may be required for replacement of one of the first and second arms, for example. The shaft 150 of the fastener 148 provides an axle or shaft for pivotal movement of the first and second arms 112 and 114 relative to one another.

Mounted on or attached to the first and second arms 112 and 114 adjacent the distal ends 118 and 126 of the first and second arms is a first pair 160 of cutting members. The first pair 160 of cutting members comprises two cutting members 162 and 164, which are shown individually in FIG. 6. Cutting member 162 is mounted adjacent the distal end 126 of the second arm 114. The cutting member 162 has an overall shape like an "L" with two legs 166 and 168 oriented substantially perpendicular to one another. A hole 170 is formed in the leg 166 and passes entirely through the leg. A surface of the leg 166 that defines the hole 170 is threaded to receive and engage a threaded fastener 172 (FIG. 1). The fastener 172 extends through a hole or passage (not shown) in the second arm 114 and is received in the hole 170 to attach or secure the cutting member 162 to the second major side surface 140 of the second arm 114. The leg 166 has a lower edge 174 with a profiled cutting surface 176, the configuration of which is explained in more detail below. In a similar manner, cutting member 164 is mounted adjacent the distal end 118 of the first arm 112. The cutting member 114 has an overall shape like an "L" with two legs 178 and 180 oriented substantially perpendicular to one another. A hole 182 is formed in the leg 178 and passes entirely through the leg. A surface of the leg 178 that defines the hole 182 is threaded to receive and engage a threaded fastener 184 (FIG. 1) The fastener 184 extends through a hole or passage (not shown) in the first arm 112 and is received in the hole 182 to attach or secure the cutting member 164 to the second major side surface 134 of the first arm 112. The leg 180 has an upper edge 186 with a profiled cutting surface 188, the configuration of which is explained in more detail below.

When mounted on or attached to the first and second arms 112 and 114, respectively, the cutting members 164 and 162 of the first pair 160 of cutting members are configured and mounted to work together. Specifically, because the two legs 166 and 168 of the cutting member 162 are oriented substantially perpendicular to one another, when the leg 166 is mounted on or attached to the second arm 114, the leg 168 and the cutting surface 176 will be oriented transverse to or, more particularly, substantially perpendicular to the length and the longitudinal axis 142 of the second arm 114. Similarly, because the two legs 178 and 180 of the cutting member 164 are oriented substantially perpendicular to one another, when the leg 178 is mounted on or attached to the first arm 112, the leg 180 and the cutting surface 188 will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axis 136 of the first arm 112. Both cutting members 162 and 164 project in the same direction, which is a direction toward the viewer in FIGS. 1 and 2. Moreover, as shown in FIG. 1, the cutting members 162 and 164 of the first pair 160 of cutting members are positioned on the second and first arms 114 and 112, respectively, such that the cutting surfaces 176 and 188 are presented toward each other. At the same time, as shown in FIG. 2, the cutting members 162 and 164 are formed and/or positioned such that the cutting surfaces 176 and 188 will pass by one another in close proximity to one another upon relative movement of the first and second arms 112 and 114 in a direction that moves the cutting members toward one another.

Mounted on or attached to the first and second arms 112 and 114 adjacent the offset portions 144 and 146 of the first and second arms and between the offset portions and the corresponding proximal ends 116 and 124 of the first and second arms is a second pair 190 of cutting members. The second pair 190 of cutting members comprises two cutting members 192 and 194, which are shown individually in FIG. 7. Cutting member 192 is mounted adjacent the offset portion 144 of the first arm 112. The cutting member 192 has an overall shape like an "L" with two legs 196 and 198 oriented substantially perpendicular to one another. A hole 200 is formed in the leg 196 and passes entirely through the leg. The hole 200 receives a threaded fastener 202 (FIG. 1) that extends into a threaded hole or passage (not shown) in the first arm 112. The fastener 202 is screwed into the hole or passage (not shown) in the first arm 112 to attach or secure the cutting member 192 to the first major side surface 132 of the first arm. The leg 198 has a lower edge 204 with a profiled cutting surface 206, the configuration of which is explained in more detail below. In a similar manner, cutting member 194 is mounted adjacent the offset portion 146 of the second arm 114. The cutting member 194 has an overall shape like an "L" with two legs 208 and 210 oriented substantially perpendicular to one another. A hole 212 is formed in the leg 208 and passes entirely through the leg. The hole 212 receives a threaded fastener 214 (FIG. 1) that extends into a threaded hole or passage (not shown) in the second arm 114. The fastener 214 is screwed into the hole or passage (not shown) in the second arm 114 to attach or secure the cutting member 194 to the first major side surface 138 of the second arm. The leg 210 has an upper edge 216 with a profiled cutting surface 218, the configuration of which is explained in more detail below.

When mounted on or attached to the first and second arms 112 and 114, respectively, the cutting members 192 and 194 of the second pair 190 of cutting members are configured

and mounted to work together. Specifically, because the two legs **196** and **198** of the cutting member **192** are oriented substantially perpendicular to one another, when the leg **196** is mounted on or attached to the first arm **112**, the leg **198** and the cutting surface **206** will be oriented transverse to or, more particularly, substantially perpendicular to the length and the longitudinal axis **136** of the first arm **112**. Similarly, because the two legs **208** and **210** of the cutting member **194** are oriented substantially perpendicular to one another, when the leg **208** is mounted on or attached to the second arm **114**, the leg **210** and the cutting surface **218** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axis **142** of the second arm **114**. Both cutting members **192** and **194** project in the same direction, which is a direction toward the viewer in FIGS. **1** and **2**. Moreover, as shown in FIG. **1**, the cutting members **192** and **194** of the second pair **190** of cutting members are positioned on the first and second arms **112** and **114**, respectively, such that the cutting surfaces **206** and **218** are presented toward each other. At the same time, as shown in FIG. **2**, the cutting members **192** and **194** are formed and/or positioned such that the cutting surfaces **206** and **218** will pass by one another in close proximity to one another upon relative movement of the first and second arms **112** and **114** in a direction that moves the cutting members toward one another.

Mounted on or attached to the first and second arms **112** and **114** adjacent the second pair **190** of cutting members and between the second pair of cutting members and the corresponding proximal ends **116** and **124** of the first and second arms is a third pair **220** of cutting members. The third pair **220** of cutting members comprises two cutting members **222** and **224**, which are shown individually in FIG. **8**. Cutting member **222** is mounted adjacent the cutting member **192** of the second pair **190** of cutting members. The cutting member **222** has an overall shape like an "L" with two legs **226** and **228** oriented substantially perpendicular to one another. A hole **230** is formed in the leg **226** and passes entirely through the leg. The hole **230** receives a threaded fastener **232** (FIG. **1**) that extends into a threaded hole or passage (not shown) in the first arm **112**. The fastener **232** is screwed into the hole or passage (not shown) in the first arm **112** to attach or secure the cutting member **222** to the first major side surface **132** of the first arm. The leg **226** has a lower edge **234** with a profiled cutting surface **236**, the configuration of which is explained in more detail below. In a similar manner, cutting member **224** is mounted adjacent the cutting member **194** of the second pair **190** of cutting members. The cutting member **224** has an overall shape like an "L" with two legs **238** and **240** oriented substantially perpendicular to one another. A hole **242** is formed in the leg **238** and passes entirely through the leg. The hole **242** receives a threaded fastener **244** (FIG. **1**) that extends into a threaded hole or passage (not shown) in the second arm **114**. The fastener **244** is screwed into the hole or passage (not shown) in the second arm **114** to attach or secure the cutting member **224** to the first major side surface **138** of the second arm. The leg **240** has an upper edge **246** with a profiled cutting surface **248**, the configuration of which is explained in more detail below.

When mounted on or attached to the first and second arms **112** and **114**, respectively, the cutting members **222** and **224** of the third pair **220** of cutting members are configured and mounted to work together. Specifically, because the two legs **226** and **228** of the cutting member **222** are oriented substantially perpendicular to one another, when the leg **226** is mounted on the first arm **112**, the leg **22$** and the cutting surface **236** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axis **136** of the first arm **112**. Similarly, because the two legs **238** and **240** of the cutting member **224** are oriented substantially perpendicular to one another, when the leg **238** is mounted on or attached to the second arm **114**, the leg **240** and the cutting surface **248** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axis **142** of the second arm **114** Both cutting members **222** and **224** project in the same direction, which is a direction toward the viewer in FIGS. **1** and **2**. Moreover, as shown in FIG. **1**, the cutting members **222** and **224** of the second pair **220** of cutting members are positioned on the first and second arms **112** and **114**, respectively, such that the cutting surfaces **236** and **248** are presented toward each other. At the same time, as shown in FIG. **2**, the cutting members **222** and **224** are formed and/or positioned such that the cutting surfaces **236** and **248** will pass by one another in close proximity to one another upon relative movement of the first and second arms **112** and **114** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **112** and **114** adjacent the third pair **220** of cutting members and between the third pair of cutting members and the corresponding proximal ends **116** and **124** of the first and second arms is a trigger mechanism or latch assembly **250** (FIGS. **1** and **2**). The latch assembly **250** includes a latch plate **252**, a pivot pin **254**, and a latch pin **256**. The latch plate **252** is an elongated flat member and has a circular opening **258** adjacent one end and a notch **260** adjacent the opposite end of the latch plate **252**. The circular opening **258** is dimensioned and configured to receive the pivot pin **254**, which is mounted in a permanent and non-removable manner on the second arm **114** so as to project substantially perpendicular to the length and longitudinal axis **142** of the second arm. When the pivot pin **254** is received in the circular opening **258**, the latch plate **252** is pivotally mounted on the pivot pin in a permanent and non-removable manner. The notch **260** is dimensioned and configured to receive the latch pin **256**, which is mounted in a permanent and non-removable manner to the first arm **112** so as to project substantially perpendicular to the length and longitudinal axis **136** of the first arm. When the latch pin **256** is received in the notch **260**, the first and second arms **112** and **114** are spaced apart a small, predetermined distance, as will be explained in greater detail hereafter. To assist in pivoting the latch plate **252** so as to move the latch pin **256** into and out of the notch **260**, a thumb plate **262** is attached to or formed in one piece with the latch plate in a manner so as to project substantially perpendicular to the length and longitudinal axis **142** of the second arm **114** in the same direction as the pivot pin **254** and the latch pin **256**.

Mounted on or formed on the first and second arms **112** and **114** adjacent the latch assembly **250** is a stop mechanism **264**. As shown, the stop mechanism **264** includes a raised edge surface **266** on a lower edge of the first arm **112** and a raised edge surface **268** on an upper edge of the second arm **114**. When the proximal portion **120** of the first arm **112** and the proximal portion **128** of the second arm **114** are pivoted toward each other, the raised edge surfaces **266** and **268** will interfere with one another by contacting one another after the proximal portions of the first and second arms have moved so as to be a predetermined distance apart. The contact between the raised edge surfaces **266** and **268** will limit or prevent further movement of the proximal portions **120** and **128** of the first and second arms **112** and **114** toward each other. The contact between the raised edge surfaces **266** and **268** will also limit or prevent further movement of the

distal ends **118** and **126** of the first and second arms **112** and **114**, respectively, toward each other, as well as movement of the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, toward each other, movement of the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, toward each other, and movement of the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, toward each other. In addition to the stop mechanism **264** or as an alternative to the stop mechanism **264**, one or more of the first, second, and third pairs **160**, **190**, and **220** of cutting members may include a stop mechanism (not shown).

In order to bias the first and second arms **112** and **114** away from each other and thus to bias the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, and the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, away each other to facilitate use of the wire stripping and cutting tool **100** and, particularly, insertion of an electrical cable into the wire stripping and cutting tool, a spring **270** is mounted on or attached to the first and second arms. As shown, the spring **270** is a wire formed with two arms **272** and **274** joined by a coiled portion **276** of the spring. The coiled portion **276** of the spring **270** is mounted side by side with the offset portions **144** and **146** of the first and second arms **112** and **114**, encircling the fastener **148**. The end **278** of the arm **272** opposite the coiled portion **276** is secured to the second arm **114** between the distal end **126** of the second arm and the offset portion **146** of the second arm. The end **280** of the arm **274** opposite the coiled portion **276** is secured to the first arm **112** between the distal end **118** of the first arm and the offset portion **144** of the first arm.

When the wire stripping and cutting tool **100** is assembled, the fastener **148** is received in the aligned openings (not shown) in the offset portions **144** and **146** of the first and second arms **112** and **114**, respectively. The first arm **112** is thus mounted to pivot about a first pivot axis **282** (FIG. **4**) that passes through the opening (not shown) in the center of the offset portion **144** of the first arm. The second arm **114** is likewise mounted to pivot about a second pivot axis **284** (FIG. **4**) that passes through the opening (not shown) in the center of the offset portion **146** of the second arm. As shown, the first and second pivot axes **282** and **284** are aligned and coaxial and thus are effectively comprise a single pivot axis. The first and second pivot axes **282** and **284** are also aligned with and coaxial with a central longitudinal axis of the fastener and with the length of the fastener **148**. The first and second arms **112** and **114** are thus arranged or oriented relative to one another in a scissor-like manner. More particularly, the distal end **126** of the second arm **114** is disposed above, as viewed in FIGS. **1-2**, the distal end **118** of the first arm **112**. The proximal portion **120** of the first arm **112** is disposed above, as viewed in FIGS. **1-2**, the proximal portion **128** of the second arm **114**. Movement of the handle **122** of the first arm **112** toward the handle **130** of the second arm **114** will thus cause the distal end **118** of the first arm to move toward the distal end **126** of the second arm. Such movement of the handles **122** and **130** will also cause movement of the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, toward each other, movement of the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, toward each other, and movement of the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, toward each other. Such movement of the handles **122** and **130** will also be movement against the biasing action of the spring **270**, which biases the handles **122** and **130** away from each other. Further, because the cutting surfaces **176** and **188**, the cutting members **162** and **164**, the cutting surfaces **206** and **218**, the rutting members **192** and **194**, the cutting surfaces **236** and **248**, and the cutting members **222** and **224** are all oriented substantially parallel to the lengths and the longitudinal axes **136** and **142** of the first and second arms **112** and **114**, respectively, all of those cutting surfaces and cutting members will be oriented substantially parallel to one another.

In use, in the configuration shown, the wire stripping and cutting tool **100** is intended to be employed as a hand tool to strip and cut non-metallic sheathed cable, such as cable sold under the trademark Romex® by Southwire Company, LLC of Carrollton, Ga., USA. As shown in section taken transverse to its longitudinal extent in FIG. **9**, such sheathed cable **286** includes an outer non-metallic sheath **288**, typically formed from an electrically-insulating polyvinyl chloride material. The outer non-metallic sheath **288** surrounds multiple individual electrical conductors, such as conductors **290** and **292**, which are insulated from each other. More particularly, the conductor **290** is surrounded by individual conductor insulation **294**, and the conductor **292** is surrounded by individual conductor insulation **296**. Also surrounded by the outer sheath **288** is a bare ground wire or conductor **298** without individual conductor insulation, which is disposed between the conductors **190** and **192**. Each of the electrical conductors **290**, **292**, and **298** may be, for example, a single, solid strand of metal, such as copper or aluminum, or a strand fabricated from several metal filaments twisted or braided together. As shown, each of the electrical conductors **290**, **292**, and **298**, when viewed in cross-section perpendicular to its length, is circular and has circular individual conductor insulation. The electrical conductors **290**, **292**, and **298** are commonly referred to as wires.

An electrician or another individual working non-metallic sheathed cable, such as the sheathed cable **286**, needs to be able to cut the outer sheath, **288** and strip a length of the outer sheath away from the conductors **290** and **292** without cutting, nicking, or otherwise damaging the conductors or the individual conductor insulation **294** and **296** for the conductors. In addition, after removing the outer sheath **288**, the electrician needs to be able to cut the individual conductor insulation **294** and **296** on the conductors **290** and **292** and strip a length of insulation from each conductor without cutting, nicking, or otherwise damaging the conductors. Further, after removing the individual conductor insulation **294** and **296** from the conductors **290** and **292**, the now-bare conductors and the ground wire **298** need to be cut to an appropriate length for connection to an electrical outlet or other electrical device.

The wire stripping and cutting tool **100** provides an electrician or other user with the foregoing functions through single movement of the handles **122** and **130** of the first and second arras **112** and **114**, respectively, toward one another, followed by relative longitudinal movement of the wire stripping and cutting tool away from the sheathed cable **286**, such as by holding the sheathed cable stationary and pulling the wire stripping and cutting tool proximally or toward the user. The user begins using the wire stripping and cutting tool **100** by allowing the handles **122** and **130** of the first and second arms **112** and **114**, respectively, of the wire stripping and cutting tool to spread apart under the bias of the spring **270** and inserting one end of a length of sheathed cable **286** into the wire stripping and cutting tool. More specifically, the length of sheathed cable **286** is inserted

between the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, between the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, and between the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, so that the end of the length of sheathed cable is located closer to the user and the proximal ends **116** and **124** of the first and second arms **112** and **114**, respectively, and the uncut length of sheathed cable extends beyond the distal ends **118** and **126** of the first and second arms. FIGS. **9**, **10** and **11** show the length of sheathed cable **286** in cross-section at the first, second and third pairs of cutting members **160**, **190**, and **210**, respectively.

FIG. **9** shows the profile provided or formed on the cutting surfaces **176** and **188** of the cutting members **162** and **164** of the first pair **160** of cutting members in order to cut through the outer sheath **288** of the sheathed cable **286** without cutting, nicking, or otherwise damaging the conductors **290**, **292** and **298** or the individual conductor insulation **294** and **296** for the conductors. The profile for each cutting surface **176** and **188** includes two relatively large diameter circular arcs **300** and **302** adjacent opposite ends of the profile. The large diameter circular arcs **300** and **302** are configured and dimensioned to extend around or fit around the individual conductor insulation **294** and **296** for the conductors **290** and **292**, respectively, as the cutting surfaces **176** and **188** are moved closer together after cutting through the outer sheath **288**, as shown in FIG. **12**. Between the spaced apart large diameter circular arcs **300** and **302** on each profile is a single, smaller diameter circular arc **304**. The small diameter circular arc **304** is configured and dimensioned to extend around or fit around the bare ground wire or uninsulated conductor **298** as the cutting surfaces **176** and **188** are moved closer together after cutting through the outer sheath **288**, as shown in FIG. **12**. The small diameter circular arc **304** is connected to each of the large diameter circular arcs **300** and **302** by a relatively short intermediate profile segment **306**, which comprises a straight segment with a transition segment at each end of the straight segment to transition into one of the circular arcs **300**, **302** or **304**.

As can be seen in FIG. **12**, the profile of each cutting surface **176** and **188** permits the two cutting surfaces to move toward each other to cut through the outer sheath **288** without also cutting through, nicking or otherwise damaging the individual conductor insulation **294** and **296** or the conductors **290**, **292**, and **298**. To ensure that the foregoing result is achieved, the cutting members **162** and **164** must be mounted on the first and second arms **112** and **114** such that the cutting surfaces **176** and **188** are spaced a predetermined distance apart from one another and the stop mechanism **264** must be positioned at an appropriate predetermined distance from the first and second pivot axes **282** and **284** and the fastener **148** so as to limit the extent to which the cutting members **162** and **164** can move toward one another. It should also be apparent that if the outer sheath **288** of a particular length of sheathed cable **286** had already been removed, the profile of each cutting surface **176** and **188** would tend to guide the conductors **290**, **292**, and **298** into positions in which the conductors would not be cut or otherwise damaged by the cutting surfaces. Further, the sharpness of the cutting surfaces **176** and **188** may be determined during manufacture of the cutting members **162** and **164** by considering the toughness or resistance to cutting of the outer sheath **288** and the minimum force or load that will be required to be applied by the user to the handles **122** and **130** to enable the cutting surfaces to cut through the outer sheath. The sharpness of the cutting surfaces **176** and **188** will affect the tendency of the cutting surfaces to cut, nick, or otherwise damage the individual conductor insulation **294** and **296** and the conductors **290**, **292**, and **298**.

FIGS. **3**, **6**, **9** and **12** also show that the cutting surfaces **176** and **188** are beveled or sloped. More particularly, the distance to the cutting surface **176** from an upper edge **310** of the leg **168** of the cutting member **162** is greatest at a side **312** of the leg **168** positioned closest to the cutting member **164**. The distance to the cutting surface **176** from the upper edge **310** is smallest at an opposite side **314** of the leg **168**. Similarly, the distance to the cutting surface **188** from a lower edge **316** of the leg **180** of the cutting member **164** is greatest at a side **318** of the leg **180** positioned closest to the cutting member **162** and the side **312** of the leg **168** of the cutting member **162**. The distance to the cutting surface **188** from the lower edge **316** is smallest at an opposite side **320** of the leg **180**. As the distal ends **118** and **126** of the first and second arms **112** and **114** are moved toward each other, the side **312** of the leg **168** of the cutting member **162** will pass in close proximity to the side **318** of the leg **180** of the cutting member **164**, and the two sides **312** and **318** will be touching or nearly touching when the distal ends **118** and **126** reach the end of their movement toward one another as determined by the stop mechanism **264**.

FIG. **10** shows the profile provided on or formed on the cutting surfaces **206** and **218** of the cutting members **192** and **194** of the second pair **190** of cutting members in order to cut through the outer sheath **288** and the individual conductor insulation **294** and **296** for the conductors **290** and **292** of the sheathed cable **286** without cutting, nicking, or otherwise damaging the conductors **290**, **292** and **298**. The profile for each cutting surface **206** and **218** includes three semicircular arcs **322**, **324**, and **326** equally spaced apart from one another across the profile. The three semicircular arcs **322**, **324**, and **326** are configured and dimensioned to extend around or fit around the conductors **290**, **292**, and **298** as the cutting surfaces **206** and **218** are moved closer together after cutting through the outer sheath **288** and the individual conductor insulation **294** and **296** for the conductors **290** and **292**, as shown in FIG. **13**. Between adjacent semicircular arcs **322**, **324**, and **326** on each profile is an outwardly directed intermediate profile segment **328**, which comprises a rounded point with tapered sides that transition into one of the adjacent semicircular arcs **322**, **324**, and **326**.

As can be seen in FIG. **13**, the profile of each cutting surface **206** and **218** permits the two cutting surfaces to move toward each other to cut through the outer sheath **288** and the individual conductor insulation **294** and **296** for the conductors **290** and **292** without also cutting through or otherwise damaging the conductors **290**, **292**, and **298**. To ensure that the foregoing result is achieved, the cutting members **192** and **194** must be mounted on the first and second arms **112** and **114** such that the cutting surfaces **206** and **218** are spaced a predetermined distance apart from one another and the stop mechanism **264** must be positioned at an appropriate predetermined distance from, the first and second pivot axes **282** and **284** and the fastener **148** so as to limit the extent to which the cutting members **192** and **194** can move toward one another. It should also be apparent that if the outer sheath **288** and the individual conductor insulation **294** and **296** for the conductors **290** and **292** of a particular length of sheathed cable **286** had already been removed, the profile of each cutting surface **206** and **218** would tend to guide the conductors **290**, **292**, and **298** into positions in which the conductors would not be cut or otherwise damaged by the cutting surfaces. Further, the sharpness of the cutting surfaces **206** and **218** may be

determined during manufacture of the cutting members **192** and **194** by considering the toughness or resistance to cutting of the outer sheath **288** and the individual conductor insulation **294** and **296** and the minimum force or load that will be required to be applied by the user to the handles **122** and **130** to enable the cutting surfaces to cut through the outer sheath and the individual conductor insulation, The sharpness of the cutting surfaces **206** and **218** will affect the tendency of the cutting surfaces to cut, nick or otherwise damage the conductors **290**, **292**, and **298**.

FIGS. **3**, **7**, **10** and **13** also show that the cutting surfaces **206** and **218** are beveled or sloped. More particularly, the distance to the cutting surface **206** from an upper edge **330** of the leg **198** of the cutting member **192** is greatest at a side **332** of the leg **198** positioned closest to the cutting member **194**. The distance to the cutting surface **206** from the upper edge **330** is smallest at an opposite side **334** of the leg **198**. Similarly, the distance to the cutting surface **218** from a lower edge **336** of the leg **210** of the cutting member **194** is greatest at a side **338** of the leg **210** positioned closest to the cutting member **192** and the side **332** of the leg **198** of the cutting member **192**. The distance to the cutting surface **21**$ from the lower edge **336** is smallest at an opposite side **340** of the leg **210**. As the distal ends **118** and **126** of the first and second arms **112** and **114** are moved toward each other, the side **332** of the leg **198** of the cutting member **192** will pass in close proximity to the side **338** of the leg **210** of the cutting member **194**, and the two sides **332** and **338** will be touching or nearly touching when the distal ends **118** and **126** reach the end of their movement toward one another as determined by the stop mechanism **264**.

FIG. **11** shows the profile provided on or formed on the cutting surfaces **236** and **248** of the cutting members **222** and **224** of the third pair **220** of cutting members in order to cut through the outer sheath **288**, the individual conductor insulation **294** and **296** for the conductors **290** and **292**, and the conductors **290**, **292** and **298** of the sheathed cable **286**. As all components of the sheathed cable **286** are to be cut completely through or severed, the profile for each cutting surface **236** and **248** is simply a straight edge. The cutting surface **248** is oriented essentially horizontally, while the cutting surface **236** is oriented at an angle to the horizontal, like the blade on a guillotine. The sharpness of the cutting surfaces **236** and **248** may be determined during manufacture of the cutting members **222** and **224** by considering the toughness or resistance to cutting of the outer sheath **288**, the individual conductor insulation **294** and **296**, and the conductors **290**, **292** and **298**, together with the minimum force or load that will be required to be applied by the user to the handles **122** and **130** to enable the cutting surfaces to cut through the outer sheath, the individual conductor insulation, and the conductors.

FIGS. **3**, **8**, and **11** show that the cutting surfaces **236** and **248** are beveled or sloped. More particularly, the distance to the cutting surface **236** from an upper edge **342** of the leg **228** of the cutting member **222** is greatest at a side **344** of the leg **228** positioned closest to the cutting member **224**. The distance to the cutting surface **236** from the upper edge **342** is smallest at an opposite side **346** of the leg **228**. Similarly, the distance to the cutting surface **248** from a lower edge **348** of the leg **240** of the cutting member **224** is greatest at a side **350** of the leg **240** positioned closest to the cutting member **222** and the side **344** of the leg **228** of the cutting member **222**. The distance to the cutting surface **248** from the lower edge **348** is smallest at an opposite side **352** of the leg **240**. As the distal ends **118** and **126** of the first and second arms **112** and **114** are moved toward each other, the side **344** of the leg **228** of the cutting member **222** will pass in close proximity to the side **350** of the leg **240** of the cutting member **224**, and the two sides **344** and **350** will be touching or nearly touching when the distal ends **118** and **126** reach the end of their movement toward one another as determined by the stop mechanism **264**.

With the length of sheathed cable **286** inserted between the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, between the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, and between the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, the user of the wire stripping and cutting tool **100** applies a force or load to the handles **122** and **130** with his or her hands. The handles **122** and **130** move toward one another in response to the force or load, and the first and second arms **112** and **114** pivot about the first and second pivot axes **282** and **284** and the fastener **148**. As the distal ends **118** and **126** of the first and second arms **112** and **114** are moved toward each other, the cutting snakes **176** and **1.88** of the cutting members **162** and **164**, respectively, move toward each other, as do the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, and the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively. When the movement of the handles **122** and **130** toward one another and pivoting movement of the first and second arms **112** and **114** about the first and second pivot axes **282** and **284** and the fastener **148** is halted by the stop mechanism **264**, the outer sheath **288** will be cut at the first pair **160** of cutting members, the outer sheath and the individual conductor insulation **294** and **296** will be cut at the second pair **190** of cutting members, and the outer sheath, the individual conductor insulation, and the conductors **290**, **292**, and **298** will be cut entirely through or severed at the third pair **220** of cutting members. All of the foregoing cutting action of each of the first, second and third pairs **160**, **190** and **220** of cutting members is accomplished with a single movement of the handles **122** and **130** toward one another and a single pivoting movement of the first and second arms **112** and **114** toward one another. Although the movement may not be continuous, in that the movement may be paused, there is no requirement to reverse the movement in order to change the position of the sheathed cable **286** and permit any of the first, second and third pairs **160**, **190** and **220** of cutting members to accomplish or complete its cutting action.

Although the cutting action of each of the first, second and third pairs **160**, **190** and **220** of cutting members is completed when the stop mechanism **264** halts movement of the handles **122** and **130** toward one another, the cutting action of each of the first, second and third pairs of cutting members is initiated sequentially at different times. Specifically, the cutting action of the second pair **190** of cutting members is initiated or started first, the cutting action of the third pair **220** of cutting members is initiated or started second, and the cutting action of the first pair **160** of cutting members is initiated or started last. In this manner, the second pair **190** of cutting members will have partially cut through the outer sheath **288** of the sheathed cable **286** and the individual conductor insulation **294** and **296** before the third pair **220** of cutting members begins to cut through the outer sheath, the individual conductor insulation, and the conductors **290**, **292**, and **298**. As a consequence, the force that must be applied to the handles **122** and **130** to continue the cutting action of the second pair **190** of cutting members will be reduced as compared to the force required to initiate the cutting action. Thus, when the third pair **220** of cutting members begins its cutting action, the force that must be

applied to the handles **122** and **130** will be greater than the force that must be applied to the handles to initiate the cutting action of just the second pair **190** of cutting members, but not as great as the sum of the force required to initiate both the cutting action of the second pair **190** of cutting members and the cutting action of the third pair **220** of cutting members.

Similarly, the second pair **190** of cutting members will have partially cut through the outer sheath **288** of the sheathed cable **286** and the individual conductor insulation **294** and **296** and the third pair **220** of cutting members will have partially cut through the outer sheath, the individual conductor insulation, and the conductors **290**, **292**, and **298** before the first pair **160** of cutting members begins to cut through the outer sheath. As a consequence, the force that must be applied to the handles **122** and **130** to continue the cutting action of the second pair **190** of cutting members and the third pair **220** of cutting members will be reduced as compared to the force required to initiate the cutting action of the second and third pairs of cutting members. Thus, when the first pair **160** of cutting members begins its cutting action, the force that must be applied to the handles **122** and **130** will be greater than the force that must be applied to the handles to initiate the cutting action of just the second pair **190** of cutting members or just the third pair **220** of cutting members, but not as great as the sum of the forces required to initiate all three of the cutting action of the first pair **160** of cutting members, the cutting action of the second pair **190** of cutting members and the cutting action of the third pair **220** of cutting members.

Having now completed the cutting process, the user can reduce the force or load applied to the handles **122** and **130** and allow the handles to spread apart slightly under the bias of the spring **270**. At the same time, the user may apply force to the thumb plate **262** to rotate the latch plate **252** of the latch assembly **250** toward the latch pin **256** so that the latch pin is received in the notch **260**. The latch assembly **250** thus is in a latched or engaged condition in which the latch assembly holds the handles **122** and **130** and the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, and the cutting surfaces **236** and **248** of the cutting members **222** and **224**, respectively, in slightly spaced apart positions. In particular, the spacing between the cutting surfaces **176** and **188** of the cutting members **162** and **164**, respectively, is such that the legs of **168** and **180** of the cutting members **162** and **164**, respectively, remain in contact with the now cut through outer sheath **288** of the sheathed cable **286**. Similarly, the spacing between the cutting surfaces **206** and **218** of the cutting members **192** and **194**, respectively, is such that the legs **198** and **210** of the cutting members **192** and **194**, respectively, remain in contact with the now cut-through outer sheath **288** and the now cut-through individual conductor insulation **294** and **296** of the sheathed cable **286**. By applying a force or load in opposite directions axially or along the length of the sheathed cable **286** and the wire stripping and cutting tool **100**, for example, by moving the sheathed cable distally of the user and holding the wire cutting and stripping tool stationary, the user can pull or strip the now cut-through short lengths of outer sheath **288** and individual conductor insulation **294** and **296** from the remainder of the length of sheathed cable via the contact with the legs of **168** and **180** of the cutting members **162** and **164**, respectively, and the legs **198** and **210** of the cutting members **192** and **194**, respectively. All of the foregoing stripping action of each of the first and second pairs **160** and **190** of cutting members is accomplished with a single movement of the sheathed cable **286** and the wire stripping and cutting tool **100** away from one another. Although the movement may not be continuous, in that the movement may be paused, there is no requirement to reverse the movement in order to change the position of the sheathed cable **286** and permit either of the first and second pairs **160** and **190** of cutting members to accomplish or complete its stripping action.

Having now completed the stripping process, the user can rotate the latch plate **252** out of engagement with the latch pin **256** to permit the handles **122** and **130** and the first and second arms **112** and **114** to spread apart under the bias of the spring **270**. The user can then remove the now stripped and cut sheathed cable **286** from the wire stripping and cutting tool **100**.

FIGS. **14** and **15** illustrate a wire stripping and cutting tool **400** that is constructed in accordance with a second example of the present invention. The wire stripping and cutting tool **400** is similar in construction and operation to the wire stripping and cutting tool **100**. Accordingly, parts and components of the wire stripping and cutting tool **400** that correspond to parts and components of the wire stripping and cutting **100** are identified with the same reference numerals increased by 300.

The wire stripping and cutting tool **400** includes a first elongated member or first arm **412** and a second elongated member or second arm **414**. The first arm **412** has a proximal end **416**, which is closer to the user of the wire stripping and cutting tool **400**, and a distal end **418**, which is farther from the user of the wire stripping and cutting tool. The length or longitudinal extent of the first arm **412** is the distance between the proximal end **416** and the distal end **418**. As shown, a proximal portion **420** of the first arm **412** extends for approximately two-thirds of the length of the first arm from the proximal end **416**. The proximal portion **420** is straight, unlike the proximal portion **120** of the first arm **112** of the wire stripping and cutting tool **100**, and provides a handle **422** far the second arm **414** adjacent its proximal end **424**. In a similar manner, the second arm **414** has a proximal end **424**, which is closer to the user of the wire stripping and cutting tool **400**, and a distal end **426**, which is farther from the user of the wire stripping and cutting tool. The length or longitudinal extent of the second arm **114** is the distance between the proximal end **424** and the distal end **426**. As shown, a proximal portion **428** of the second UM **414** extends for approximately two-thirds of the length of the second arm from the proximal end **424**. The proximal portion **428** is straight, unlike the proximal portion **128** of the second arm **114** of the wire stripping and cutting tool **100**, and provides a handle **430** for the second arm **414** adjacent its proximal end **424**.

Each of the first and second arms **412** and **414** is substantially flat and lies in a plane. More particularly, the first arm **412** has a first major side surface **432** presented in one direction and a substantially parallel second major side surface **434** presented in an opposite direction. Extending from the proximal end **416** to the distal end **418** of the first arm **412** and generally between the first and second major side surfaces **432** and **434** is a longitudinal axis **436** (FIG. **14**). Likewise, the second arm **414** has a first major side surface **438** presented in one direction and a substantially parallel second major side surface **440** presented in an opposite direction. Extending from the proximal end **424** to the distal end **426** of the second arm **414** and generally between the first and second major side surfaces **438** and **440** is a longitudinal axis **442** (FIG. **14**). With the foregoing

configuration, each of the first and second arms **412** and **414** may be stamped from sheet metal. At a distance of approximately one-third of the length of the first arm **412** from the distal end **418**, an offset portion **444** is stamped or otherwise formed in the first arm **412**. A similar substantially circular, disc-like offset portion **446** is stamped or otherwise formed at approximately the same position along the length of the second arm **414**. The offset portions **444** and **446** have complementary shapes so that the first and second arms **412** and **414** can be placed side by side at the offset portions **444** and **446**, but otherwise lie in the same plane, as can be seen in FIG. **14**. As also can be seen in FIG. **14**, the longitudinal axes **436** and **442** do not extend between their corresponding first and second major side surfaces **432**, **434** and **438**, **440**, respectively, in the offset portions **444** and **446**.

Approximately in the center of each offset portion **444** and **446** is an opening (not shown) that passes through the corresponding first or second arm **412**, **414**. When the first and second arms **412** and **414** are placed side by side at the offset portions **444** and **446**, the opening (not shown) are axially aligned. A fastener **448** is received in the aligned openings. The fastener **448** has a shaft **450** (FIG. **14**) received in the aligned openings (not shown). At one end of the shaft **450**, the fastener **448** has a head **452** that is too large to pass through the aligned openings (not shown) in the offset portions **444** and **446**. The shaft **450** is threaded, as is the surface of the first arm **412** that defines the opening (not shown) in the offset portion **444**. The fastener **448** may thus be screwed into the opening (not shown) in the offset portion **444** to join the first arm **412** to the second arm **414** in a manner that can be undone as may be required for replacement of one of the first and second arms, for example. The shaft **450** of the fastener **448** provides an axle or shaft for pivotal movement of the first and second arms **412** and **414** relative to one another, as will be explained below.

Attached to or formed in one piece with the first and second arms **412** and **414** at the distal ends **418** and **426** of the first and second arms is a first pair **460** of cutting members. The first pair **460** of cutting members comprises two cutting members **462** and **464**. Cutting member **462** is mounted at or formed at the distal end **426** of the second arm **414**. The cutting member **462** is a straight member oriented substantially perpendicular to the second arm **414**. The cutting member **462** has a lower edge **474** with a profiled cutting surface **476**, which is substantially identical to the profiled cutting surface **176** of the cutting member **162**. In a similar manner, cutting member **464** is mounted at or formed at the distal end **418** of the first arm **412**. The cutting member **464** is a straight member oriented substantially perpendicular to the first arm **412**. The cutting member **464** has an upper edge **486** with a profiled cutting surface **488**, which is substantially identical to the profiled cutting surface **188** of the cutting member **164**.

When mounted or formed on the first and second arms **412** and **414**, respectively, the cutting members **464** and **462** of the first pair **460** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **462** and **464** are oriented substantially perpendicular to the second and first arms **414** and **412**, respectively, the cutting surfaces **488** and **476** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes **442** and **436** of the second and first arms **414** and **412**, respectively. Moreover, the cutting members **462** and **464** of the first pair **460** of cutting members are positioned on the second and first arms **414** and **412**, respectively, such that the cutting surfaces **476** and **488** are presented toward each other. At the same time, the cutting members **462** and **464** are formed and/or positioned such that the cutting surfaces **476** and **488** will pass by one another in close proximity to one another upon relative movement of the first and second arms **412** and **414** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **412** and **414** adjacent the offset portions **444** and **446** of the first and second arms and between the offset portions and the corresponding proximal ends **416** and **424** of the first and second arms is a second pair **490** of cutting members. The second pair **490** of cutting members comprises two cutting members **492** and **494**. Cutting member **492** is mounted adjacent the offset portion **444** of the first arm **412**. The cutting member **492** is a straight member oriented substantially perpendicular to the first arm **412**. The cutting member **492** has a lower edge **504** with a profiled cutting surface **506**, which is substantially identical to the profiled cutting surface **206** of the cutting member **192**. In a similar manner, cutting member **494** is mounted adjacent the offset portion **446** of the second arm **414**. The cutting member **494** is a straight member oriented substantially perpendicular to the second arm **414**. The cutting member **492** has an upper edge **516** with a profiled cutting surface **518**, which is substantially identical to the profiled cutting surface **218** of the cutting member **194**.

When mounted on the first and second arms **412** and **414**, respectively, the cutting members **492** and **494** of the second pair **490** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **492** and **494** are oriented substantially perpendicular to the first and second arms **412** and **414**, respectively, the cutting surfaces **506** and **518** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes **436** and **442** of the first and second arms **412** and **414**, respectively. Moreover, the cutting members **492** and **494** of the second pair **490** of cutting members are positioned on the first and second arms **412** and **414**, respectively, such that the cutting surfaces **506** and **518** are presented toward each other. At the same time, the cutting members **492** and **494** are formed and/or positioned such that the cutting surfaces **506** and **518** will pass by one another in close proximity to one another upon relative movement of the first and second arms **412** and **414** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **412** and **414** adjacent the second pair **490** of cutting members and between the second pair of cutting members and the corresponding proximal ends **416** and **424** of the first and second arms is a third pair **520** of cutting members. The third pair **520** of cutting members comprises two cutting members **522** and **524**. Cutting member **522** is mounted adjacent the cutting member **492** of the second pair **490** of cutting members. Cutting member **522** is also connected to the cutting member **492** by a straight connecting member **660**. Together, the cutting member **492**, the cutting member **522**, and the connecting member **660** have an overall shape like a "U." The connecting member **660** may be attached to the first arm **412** to mount the cutting members **492** and **522** on the first arm. The cutting member **522** is a straight member oriented substantially perpendicular to the first arm **412**. The cutting member **522** has a lower edge **534** with a profiled cutting surface **536**, which is substantially identical to the profiled cutting surface **236** of the cutting member **222**. In a similar manner, cutting member **524** is mounted adjacent the cutting member **494** of the second pair **490** of cutting

members. Cutting member **524** is also connected to the cutting member **494** by a straight connecting member **662**. Together, the cutting member **494**, the cutting member **524**, and the connecting member **662** have an overall shape like a "U." The connecting member **662** may be attached to the second arm **414** to mount the cutting members **494** and **524** on the second arm. The cutting member **524** is a straight member oriented substantially perpendicular to the second arm **414**. The cutting member **524** has upper edge **546** with a profiled cutting surface **548**, which is substantially identical to the profiled cutting surface **248** of the cutting member **224**.

When mounted on the first and second arms **412** and **414**, respectively, the cutting members **522** and **524** of the third pair **520** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **522** and **524** are oriented substantially perpendicular to the first and second arms **412** and **414**, respectively, the cutting surfaces **536** and **548** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes **436** and **442** of the first and second arms **412** and **414**, respectively. Moreover, the cutting members **522** and **524** of the third pair **520** of cutting members are positioned on the first and second arms **412** and **414**, respectively, such that the cutting surfaces **536** and **548** are presented toward each other. At the same time, the cutting members **522** and **524** are formed and/or positioned such that the cutting surfaces **536** and **548** will pass by one another in close proximity to one another upon relative movement of the first and second arms **412** and **414** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **412** and **414** adjacent the third pair **530** of cutting members and between the third pair of cutting members and the corresponding proximal ends **416** and **424** of the first and second arms is a trigger mechanism or latch assembly **550**. The latch assembly **550** (which is not shown in FIG. **14**) includes a latch plate **552**, a pivot pin **554**, a latch pin **556**, and a latch spring **664**. The latch plate **552** is an elongated flat member and has a circular opening (not shown) adjacent one end and a notch **560** adjacent the opposite end. The circular opening (not shown) is dimensioned and configured to receive the pivot pin **554**, which is mounted in a permanent and non-removable manner to the second arm **414** so as to project substantially perpendicular to the length and longitudinal axis **442** of the second arm. When the pivot pin **554** is received in the circular opening (not shown), the latch plate **552** is pivotally mounted on the pivot pin in a permanent and non-removable manner. The notch **560** is dimensioned and configured to receive the latch pin **556**, which is mounted in a permanent and non-removable manner to the first arm **412** so as to project substantially perpendicular to the length and longitudinal axis **436** of the first arm. Unlike the notch **260** of the latch plate **252** of the wire stripping and cutting tool **100**, the notch **560** has an orientation that is downwardly sloping, as viewed in FIG. **15**. With such a downward sloping orientation, the notch **560** will tend to allow the latch pin **556** to pass by and not engage the notch when the latch pin is moving in a downward direction relative to the latch plate **552**. When the latch pin **256** is received in the notch **560**, the first and second arms **412** and **414** are spaced apart a small, predetermined distance, as will be explained in greater detail hereafter. The latch spring **664**, which is mounted so as to encircle the pivot pin **554**, resiliently biases the latch plate **552** to pivot around the pivot pin toward a position in which the latch pin **256** is received in the notch **560**. To assist in pivoting the latch plate **552** so as to move the latch pin **556** out of the notch **560**, a thumb plate **562** is secured to or formed in one piece with the latch plate in a manner so as to project substantially perpendicular to the length and longitudinal axis **442** of the second arm **414**.

Formed on the first and second arms **412** and **414** adjacent the distal ends **418** and **426** of the first and second arms is a stop mechanism **564**. As shown, the stop mechanism **564** includes a surface **566** on a low upper edge of the first arm **412** and a surface **568** on a lower edge of the second arm **414**. When the proximal portion **420** of the first arm **412** and a proximal portion **428** of the second arm **414** are pivoted toward each other, the surfaces **566** and **568** will interfere with one another by contacting one another after the proximal portions of the first and second arms have moved so as to be in a predetermined position relative to one another. The contact between the surfaces **566** and **568** will limit or prevent further movement of the proximal portions **420** and **428** of the first and second arms **412** and **414** toward each other. As will be explained in further detail hereafter, the contact between the surfaces **566** and **568** will also limit or prevent further movement of the distal ends **418** and **426** of the first and second arms **412** and **414**, respectively, toward each other, as well as movement of the cutting surfaces **476** and **488** of the cutting members **462** and **464**, respectively, toward each other, movement of the cutting surfaces **506** and **518** of the cutting members **492** and **494**, respectively, toward each other, and movement of the cutting surfaces **536** and **548** of the cutting members **522** and **524**, respectively, toward each other.

In order to bias the first and second arms **412** and **414** away from each other and thus to bias the cutting surfaces **476** and **488** of the cutting members **462** and **464**, respectively, the cutting surfaces **506** and **518** of the cutting members **492** and **494**, respectively, and the cutting surfaces **536** and **548** of the cutting members **522** and **524**, respectively, away each other to facilitate use of the wire stripping and cutting tool **400** and, particularly, insertion of an electrical cable into the wire stripping and cutting tool, a spring **570** is mounted to the first and second arms. As shown, the spring **570** is a coil spring captured between the offset portions **444** and **446** of the fast and second arms **412** and **414** adjacent to but offset from the fastener **448**.

When the wire stripping and cutting tool **400** is assembled, the fastener **448** is received in the aligned openings (not shown) in the offset portions **444** and **446** of the first and second arms **412** and **414**, respectively. The first arm **412** is thus mounted to pivot about a first pivot axis **582** (FIG. **14**) that passes through the opening (not shown) in the center of the offset portion **444** of the first arm. The second arm **414** is likewise mounted to pivot about a second pivot axis **584** (FIG. **14**) that passes through the opening (not shown) in the center of the offset portion **446** of the second arm. As shown, the first and second pivot axes **582** and **584** are aligned and coaxial. The first and second pivot axes **582** and **584** are also aligned with and coaxial with the length of the fastener **448**. The first and second arms **412** and **414** are also arranged in a scissor-like manner. More particularly, the distal end **426** of the second arm **414** is disposed above, as viewed in FIG. **15**, the distal end **418** of the first arm **412**. The proximal portion **420** of the first sun **412** is disposed above, as viewed in FIG. **15**, the proximal portion **428** of the second arm **414**. Movement of the handle **422** of the first arm **412** toward the handle **430** of the second arm **414** will thus cause the distal end **418** of the first arm to move toward the distal end **426** of the second arm. Such movement of the handles **422** and **430** will also cause movement of the cutting

surfaces **476** and **488** of the cutting members **462** and **464**, respectively, toward each other, movement of the cutting surfaces **506** and **518** of the cutting members **492** and **494**, respectively, toward each other, and movement of the cutting surfaces **536** and **548** of the cutting members **522** and **524**, respectively, toward each other. Such movement of the handles **422** and **430** will also be against the biasing action of the spring **570**, which biases the handles **422** and **430** away from each other.

In use, the wire stripping and cutting tool **400** is intended to be employed as a hand tool to strip and cut non-metallic sheathed cable, like the wire stripping and cutting tool **100** of FIGS. **1-13**. The wire stripping and cutting tool **400** functions in the same manner as the wire stripping and cutting tool **100**, except that the latch spring **664** tends to bias the latch plate **252** to engage the latch pin **256** when the force or load on the handles **422** and **430** is reduced by the user after the cutting process but before the stripping process. With the wire stripping and cutting tool **100**, the user applies force to the thumb plate **262** to rotate the latch plate **252** of the latch assembly **250** toward the latch pin **256** so that the latch pin is received in the notch **260**.

FIG. **16** illustrates a wire stripping and cutting tool **700** that is constructed in accordance with a third example of the present invention. The wire stripping and cutting tool **700** is broadly similar in construction to the wire stripping and cutting tool **100**. Accordingly, parts and components of the wire stripping and cutting tool **700** that correspond to parts and components of the wire stripping and cutting **100** are identified with the same reference numerals increased by **600**.

The wire stripping and cutting tool **700** includes a first elongated member or first arm **712** and a second elongated member or second arm **714**. The first arm **712** has a proximal end **716**, which is closer to the user of the wire cutting and stripping tool **700**, and a distal end **718**, which is farther from the user of the wire cutting and stripping tool. The length or longitudinal extent of the first arm **712** is the distance between the proximal end **716** and the distal end **718**. As shown, a proximal portion **720** of the first arm **712** extends for approximately two-thirds of the length of the first arm from the proximal end **716**. Approximately half-way along the along its length, the proximal portion **720** is bent at about a 75° angle, which provides a handle **722** for the first arm **712** adjacent its proximal end **716**. In a similar manner, the second arm **714** has a proximal end **724**, which is closer to the user of the wire cutting and stripping tool **700**, and a distal and **726**, which is farther from the user of the wire cutting and stripping tool. The length or longitudinal extent of the second area **714** is the distance between the proximal end **724** and the distal end **726**. As shown, a proximal portion **728** of the second arm **714** extends for approximately two-thirds of the length of the second arm from the proximal end **724**. Approximately half-way along the along its length, the proximal portion **728** is bent at about a 75° angle, which provides a handle **730** for the second arm **714** adjacent its proximal end **724**.

Each of the first and second arms **712** and **714** is substantially flat and lies in a plane. More particularly, the first arm **712** has a first major side surface **732** presented in one direction and a substantially parallel second major side surface (not shown) presented in an opposite direction. Extending from the proximal end **716** to the distal end **718** of the first arm **712** and generally between the first and second major side surfaces is a longitudinal axis. Likewise, the second arm **714** has a first major side surface **438** presented in one direction and a substantially parallel second major side surface (not shown) presented in an opposite direction. Extending from the proximal end **724** to the distal end **726** of the second arm **714** and generally between the first and second major side surfaces is a longitudinal axis. With the foregoing configuration, each of the first and second arms **712** and **714** may be stamped from sheet metal. At a distance of approximately one-third of the length of the first arm **712** from the distal end **718**, an offset portion **744** is stamped or otherwise formed in the first arm **712**. A similar substantially circular, disc-like offset portion **746** is stamped or otherwise formed at approximately the same position along the length of the second arm **714**. The offset portions **744** and **746** have complementary shapes so that the first and second arms **712** and **714** can be placed side by side at the offset portions **744** and **746**, but otherwise lie in the same plane. Also, the longitudinal axes do not extend between their corresponding first and second major side surfaces in the offset portions **744** and **746**.

Approximately in the center of each offset portion **744** and **746** is an opening (not shown) that passes through the corresponding first or second arm **712**, **714**. When the first and second arms **712** and **714** are placed side by side at the offset portions **744** and **746**, the opening (not shown) are axially aligned. A fastener **748** is received in the aligned openings. The fastener **748** provides an axle or shaft for pivotal movement of the first and second arms **712** and **714** relative to one another, as will be explained below.

Attached to or formed in one piece with the first and second arms **712** and **714** at the distal ends **718** and **726** of the first and second arms is a first pair **760** of cutting members. The first pair **760** of cutting members comprises two cutting members **762** and **764**. Cutting member **762** is mounted at or formed at the distal end **726** of the second arm **714**. The cutting member **762** is a straight member oriented substantially perpendicular to the second arm **714**. The cutting member **762** has a lower edge **774** with a profiled cutting surface **776**, which is substantially identical to the profiled cutting surface **176** of the cutting member **162**, in a similar manner, cutting member **764** is mounted at or formed at the distal end **718** of the first arm **712**. The cutting member **764** is a straight member oriented substantially perpendicular to the first arm **712**. The cutting member **464** has an upper edge **786** with a profiled cutting surface **788**, which is substantially identical to the profiled cutting surface **188** of the cutting member **164**.

When mounted or formed on the first and second arms **712** and **714**, respectively, the cutting members **764** and **762** of the first pair **760** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **762** and **764** are oriented substantially perpendicular to the second and first arms **714** and **712**, respectively, the cutting surfaces **788** and **776** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes of the second and first arms. Moreover, the cutting members **762** and **764** of the first pair **760** of cutting members are positioned on the second and first arms **714** and **712**, respectively, such that the cutting surfaces **776** and **788** are presented toward each other. At the same time, the cutting members **762** and **764** are fanned and/or positioned such that the cutting surfaces **776** and **788** will pass by one another in close proximity to one another upon relative movement of the first and second arms **712** and **714** in a direction that moves the cutting members toward one another.

Formed on the first and second arms **712** and **714** between the offset portions **744** and **746** and the corresponding distal ends **718** and **726** of the first and second arms are additional

sets of cutting surfaces. Closest to the first pair **760** of cutting members is a pair of outer sheath cutting surfaces **966** and **968** shaped like the cutting surfaces **176** and **188** of the wire stripping and cutting tool **100**. Adjacent to the cutting surfaces **966** and **968** and closer to the offset portions **744** and **746** is a pair of cutting surfaces **970** and **972** like the cutting surfaces **206** and **218** of the wire stripping and cutting tool **100**. Adjacent to the cutting surfaces **970** and **972** and closer still to the offset portions **744** and **746** is a series of seven cutting surfaces **974** formed in the first arm **712** and a complementary series of seven cutting surfaces **976** formed on the second arm **714** for cutting and stripping the individual conductor insulation from conductors of seven different diameters or gauges. Adjacent to the cutting surfaces **974** and **976** and yet closer still to the offset portions **744** and **746** is an arcuate cutting surface **978** formed in the first arm **712** and a complementary arcuate cutting surface **980** formed on the second arm **714** for shear cutting. Also formed in the second arm **714** above the arcuate cutting surface **980** is a hole or opening **982** for receiving an end of a conductor to form a hook or bend in the conductor. As another feature, two screw cutting openings **984** are formed in the first and second arms **712** and **714** adjacent to the cutting surfaces **978** and **980** and in the offset portions **744** and **746**. Further, adjacent to the offset portions **744** and **746** and between the offset portions and the corresponding proximal ends **716** and **724** of the first and second arms **712** and **714** are a flat clamping surface **986** formed in the first arm **712** and a complementary flat clamping surface **988** formed on the second arm **714**. Together, the clamping surfaces **986** and **988** allow the user of the wire stripping and cutting tool **700** to clamp a sheathed cable between the clamping surfaces and then apply a pulling force or load to the sheathed cable by gripping the wire stripping and cutting tool **700** by its handles **722** and **730** and the distal ends **718** and **726** of its first and second arms **712** and **714** to pull the sheathed cable through a conduit, holes in wall studs, and/or an open space.

Mounted to the first and second arms **712** and **714** adjacent the clamping surfaces **986** and **988** and between the clamping surfaces **986** and **988** and the proximal ends **716** and **724** of the first and second arms is a second pair **790** of cutting members. The second pair **790** of cutting members comprises two cutting members **792** and **794**. Cutting member **792** is mounted adjacent the clamping surface **986** of the first arm **712**. The cutting member **792** is a straight member oriented substantially perpendicular to the first arm **712**. The cutting member **792** has a lower edge **804** with a profiled cutting surface **806**, which is substantially identical to the profiled cutting surface **206** of the cutting member **192**. In a similar manner, cutting member **794** is mounted adjacent the clamping surface **988** of the second arm **714**. The cutting member **794** is a straight member oriented substantially perpendicular to the second arm **714**. The cutting member **792** has an upper edge **816** with a profiled cutting surface **818**, which is substantially identical to the profiled cutting surface **218** of the cutting member **194**.

When mounted on the first and second arms **712** and **714**, respectively, the cutting members **792** and **794** of the second pair **790** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **792** and **794** are oriented substantially perpendicular to the first and second arms **712** and **714**, respectively, the cutting surfaces **806** and **818** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes of the first and second arms **712** and **714**, respectively. Moreover, the cutting members **792** and **794** of the second pair **790** of cutting members are positioned on the first and second arms **712** and **714**, respectively, such that the cutting surfaces **806** and **818** are presented toward each other. At the same time, the cutting members **792** and **794** are formed and/or positioned such that the cutting surfaces **806** and **818** will pass by one another in close proximity to one another upon relative movement of the first and second arms **712** and **714** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **712** and **714** adjacent the second pair **790** of cutting members and between the second pair of cutting members and the corresponding proximal ends **716** and **724** of the first and second arms is a third pair **820** of cutting members. The third pair **820** of cutting members comprises two cutting members **822** and **824**. Cutting member **822** is mounted adjacent the cutting member **792** of the second pair **790** of cutting members. Cutting member **822** is also connected to the cutting member **792** by a curved connecting member **960**. Together, the cutting member **792**, the cutting member **822**, and the connecting member **960** have an overall shape like a "U." The connecting member **960** may be attached to the first arm **712** to mount the cutting members **792** and **822** on the first arm. The cutting member **822** is a straight member oriented substantially perpendicular to the first arm **712**. The cutting member **822** has a lower edge **834** with a profiled cutting surface **836**, which is substantially identical to the profiled cutting surface **236** of the cutting member **222**. In a similar manner, cutting member **824** is mounted adjacent the cutting member **794** of the second pair **790** of cutting members. Cutting member **824** is also connected to the cutting member **794** by a curved connecting member **962**. Together, the cutting member **794**, the cutting member **824**, and the connecting member **962** have an overall shape like a "U." The connecting member **962** may be attached to the second arm **714** to mount the cutting members **794** and **824** on the second arm. The cutting member **824** is a straight member oriented substantially perpendicular to the second arm **714**. The cutting member **824** has upper edge **846** with a profiled cutting surface **848**, which is substantially identical to the profiled cutting surface **248** of the cutting member **224**.

When mounted on the first and second arms **712** and **714**, respectively, the cutting members **822** and **824** of the third pair **820** of cutting members are configured and mounted to work together. Specifically, because the two cutting members **822** and **824** are oriented substantially perpendicular to the first and second arms **712** and **714**, respectively, the cutting surfaces **836** and **848** will be oriented transverse to or, more particularly, substantially perpendicular to, the length and the longitudinal axes **736** and **742** of the first and second arms **712** and **714**, respectively. Moreover, the cutting members **822** and **824** of the third pair **820** of cutting members are positioned on the first and second arms **712** and **714**, respectively, such that the cutting surfaces **836** and **848** are presented toward each other. At the same time, the cutting members **822** and **824** are formed and/or positioned such that the cutting surfaces **836** and **848** will pass by one another in close proximity to one another upon relative movement of the first and second arms **712** and **714** in a direction that moves the cutting members toward one another.

Mounted to the first and second arms **712** and **714** adjacent the third pair **830** of cutting members and between the third pair of cutting members and the corresponding proximal ends **716** and **724** of the first and second arms is a

trigger mechanism or latch assembly **850**. The latch assembly **850** includes a latch plate **852**, a pivot pin **854**, and a latch pin **856**. The latch plate **852** is an elongated flat member and has a circular opening **858** adjacent one end and a notch **860** adjacent the opposite end. The circular opening **858** is dimensioned and configured to receive the pivot pin **854**, which is mounted in a permanent and non-removable manner to the second arm **714** so as to project substantially perpendicular to the length and longitudinal axis of the second arm. When the pivot pin **854** is received in the circular opening **858**, the latch plate **852** is pivotally mounted on the pivot pin in a permanent and non-removable manner. The notch **860** is dimensioned and configured to receive the latch pin **856**, which is mounted in a permanent and non-removable manner to the first arm **712** so as to project substantially perpendicular to the length and longitudinal axis of the first arm. When the latch pin **856** is received in the notch **860**, the first and second arms **712** and **714** are spaced apart a small, predetermined distance, as will be explained in greater detail hereafter. To assist in pivoting the latch plate **852** so as to move the latch pin **856** into and out of the notch **860**, a thumb plate **862** is secured to or formed in one piece with the latch plate in a manner so as to project substantially perpendicular to the length and longitudinal axis of the second arm **714**.

Formed on the first and second arms **712** and **714** adjacent the latch assembly **850** is a stop mechanism **864**. As shown, the stop mechanism **864** includes a surface **866** on a lower edge of the first arm **712** and a surface **868** on an upper edge of the second arm **714**. When the proximal portion **720** of the first arm **712** and a proximal portion **724** of the second arm **714** are pivoted toward each other, the surfaces **866** and **868** will interfere with one another by contacting one another after the proximal portions of the first and second arms have moved so as to be a predetermined distance apart. The contact between the surfaces **866** and **868** will limit or prevent further movement of the proximal portions **720** and **728** of the first and second arms **712** and **714** toward each other. As will be explained in further detail hereafter, the contact between the surfaces **866** and **868** will also limit or prevent further movement of the distal ends **718** and **726** of the first and second arms **712** and **714**, respectively, toward each other, as well as movement of the cutting surfaces **776** and **788** of the cutting members **762** and **764**, respectively, toward each other, movement of the cutting surfaces **806** and **818** of the cutting members **792** and **794**, respectively, toward each other, and movement of the cutting surfaces **836** and **848** of the cutting members **822** and **824**, respectively, toward each other.

In order to bias the first and second arms **712** and **714** away from each other and thus to bias the cutting surfaces **776** and **788** of the cutting members **762** and **764**, respectively, the cutting surfaces **806** and **818** of the cutting members **792** and **794**, respectively, and the cutting surfaces **836** and **848** of the cutting members **822** and **824**, respectively, away each other to facilitate use of the wire stripping and cutting tool **700** and, particularly, insertion of an electrical cable into the wire stripping and cutting tool, a spring **870** is mounted to the first and second arms. As shown, the spring **870** is a coil spring captured between the offset portions **744** and **746** of the first and second arms **712** and **714** adjacent to but offset from the fastener **748**. To assist the spring **870**, a first supplemental spring **990** is mounted on a first shaft **992** with two enlarged ends **994**. The first shaft **992** passes through an opening (not shown) in the connecting member **960** with one enlarged end **994** located above, as viewed in FIG. **16**, the connecting men her and the other enlarged end **994** located below, as viewed in FIG. **16**, the connecting member. The first supplemental spring **990** is positioned to press the first shaft **992** in a downward direction. Similarly, a second supplemental spring **996** is mounted on a second shaft **997** with two enlarged ends **998**. The second shaft **997** passes through an opening (not shown) in the connecting member **962** with one enlarged end **998** located above, as viewed in FIG. **16**, the connecting member and the other enlarged end **998** located below, as viewed in FIG. **16**, the connecting member. The second supplemental spring **996** is positioned to press the second shaft **997** in an upward direction. As can be seen, the lower enlarged end **994** of the first shaft **992** contacts the upper enlarged end **998** of the second shaft **997** so as to bias the two connecting members **960** and **962** away from one another.

Extending below the first and second supplemental springs **990** and **996** and below the second and third pairs **790** and **820** of cutting members is a "trigger guard" or finger loop **999** of rigid material. The finger loop **999** provides an additional mechanism for a user to grip the wire stripping and cutting tool **700**. The finger loop **999** also provides a mechanism for a user to hold the wire stripping and cutting tool **700** with only one finger so that, for example, the wire stripping and cutting tool need not be laid down in order for the user to perform some other function with the rest of his or her hand.

When the wire snipping and cutting tool **700** is assembled, the fastener **748** is received in the aligned openings (not shown) in the offset portions **744** and **746** of the first and second arms **712** and **714**, respectively. The first arm **712** is thus mounted to pivot about a first pivot axis that passes through the opening (not shown) in the center of the offset portion **744** of the first arm. The second arm **714** is likewise mounted to pivot about a second pivot axis that passes through the opening (not shown) in the center of the offset portion **746** of the second arm. The first and second pivot axes are aligned and coaxial. The first and second pivot axes are also Aped with and coaxial with the length of the fastener **748**. The first and second arms **712** and **714** are also arranged in a scissor-like manner. More particularly, the distal end **726** of the second arm **714** is disposed above, as viewed in FIG. **16**, the distal end **718** of the first arm **712**. The proximal portion **720** of the first arm **712** is disposed above, as viewed in FIG. **16**, the proximal portion **728** of the second arm **714**. Movement of the handle **722** of the first arm **712** toward the handle **730** of the second arm **714** will thus cause the distal end **718** of the first arm to move toward the distal end **726** of the second arm. Such movement of the handles **722** and **730** will also cause movement of the cutting surfaces **776** and **788** of the cutting members **762** and **764**, respectively, toward each other, movement of the cutting surfaces **806** and **818** of the cutting members **792** and **794**, respectively, toward each other, and movement of the cutting surfaces **836** and **848** of the cutting members **822** and **824**, respectively, toward each other. Such movement of the handles **722** and **730** will also be against the biasing action of the spring **870**, which biases the handles **722** and **730** away from each other.

In use, the wire stripping and cutting tool **700** is intended to be employed as a hand tool to strip and out non-metallic sheathed cable, like the wire stripping and cutting tool **100** of FIGS. **1-13**. The wire stripping and cutting tool **700** functions in the same manner as the wire stripping and cutting tool **100**.

FIGS. **17** and **17**A illustrate a wire stripping and cutting tool **700'** that is substantially the same in construction as the wire stripping and cutting tool **700**. Accordingly, parts and components of the wire stripping and cutting tool **700'** that

correspond to parts and components of the wire stripping and cutting tool **700** are identified with the same reference numerals. Where parts and components of the wire stripping and cutting tool **700'** correspond to parts and components of the wire stripping and cutting tool **700**, but are described hereafter as having different structures or functions, such parts and components are identified with the same reference numerals and an added prime (').

The primary difference between the wire stripping and cutting tool **700'** and the wire stripping and cutting tool **700** is that the surfaces **776'** and **788'** of the wire stripping and cutting tool **700'** are not cutting surfaces, but are guide surfaces. Specifically, the guide surfaces **776'** and **788'** are not sharpened for cutting and, as can be seen in FIG. **17**A, together form a rectangle with rounded ends or an oval when the wire stripping and cutting tool **700'** is in a closed position with its handles **722** and **730** and the guide surfaces **776'** and **788'** as close together as the tool permits. With such a combined shape, the guide surfaces **776'** and **788'** help to guide two or more separate conductors covered with individual conductor insulation into a side-by-side alignment for presentation to the cutting surfaces **806'** and **818'** of the second pair **790** of cutting members. In other words, the guide surfaces **776'** and **788'** are shaped and dimensioned to guide the conductors into a predetermined orientation relative to one another as the conductors are extended, as by being pushed or pulled, lengthwise between the guide surfaces. The predetermined orientation is such that the cutting surfaces **806'** and **818'** of the second pair **790** of cutting members wits cut through the individual conductor insulation covering each of the conductors without cutting the conductors. The cutting surfaces **806'** and **818'** of the second pair **790** of cutting members and the cutting surfaces **836'** and **848'** of the third pair **820** of cutting members perform the same cutting and stripping tasks as the counterpart surfaces **806**, **818**, **836**, and **848** of the wire stripping and cutting tool **700**, but may be shaped and dimensioned to handle a different number of electrical conductors or electrical conductors with a larger diameter or larger gauge.

Although the cutting members **792** and **794** of the wire stripping and cutting tool **700'** are described above as being a "second" pair **790** of cutting member and the cutting members **822** and **824** of the wire stripping and cutting tool **700'** are described as being a "third" pair **220** of cutting member, this description is merely to facilitate a description of the wire stripping and cutting tool **700'** without repeating all of the description of the wire stripping and cutting tool **700**, as the wire stripping and cutting tool **700'** has only two pairs of cutting members. More particularly, in this regard, the members **762** and **764** of the wire stripping and cutting tool **700'**, which are the same as the cutting members **762** and **764** of the wire stripping and cutting tool **700**, except for the surfaces **776'** and **788'**, are guide members, rather than cutting members.

Another difference between the stripping and cutting tools **700** and **700'** is that the cutting surfaces **974'** and **976'** are configured and dimensioned for cutting and stripping the individual conductor insulation from pairs of conductors of three different diameters or gauges A further difference is that the cutting surfaces **970'** and **972'** are a series of five cutting surfaces **970'** formed in the first arm **712** and a complementary series of five cutting surfaces **972'** formed on the second mu **714** for cutting and stripping the individual conductor insulation from conductors of five different diameters or gauges.

In each of the wire stripping and cutting tools **100**, **400**, **700**, and **700'**, the separation or spacing between the various pairs of cutting members along the length of the tools and along the length of their first and second arms can be established or determined in accordance with the intended use of the tool and applicable electrical codes or similar legal requirements. For example, in one particular embodiment of a wire stripper and cutter in accordance with FIGS. **14** and **15**, which is intended for use with non-metallic sheathed cable for residential construction, the first pair **460** of cutting members is located at a distance of 5½ inches from the third pair **520** of cutting members. The second pair **490** of cutting members is located at a distance of ½ inch from the third pair **520** of cutting members. The numerical values set forth above and other numerical values set forth in the present application are given by way of example only and other values may be used with satisfactory results.

It is also possible to provide different profiles for the various cutting surfaces included in each of the wire stripping and cutting tools **100**, **400**, **700**, and **700'**. For example, the profiles of the cutting surfaces **176** and **188**, the cutting surfaces **206** and **218**, and the cutting surfaces **236** and **248** of the wire stripping and cutting tool **100**, which are shown in detail in FIGS. **6-13**, are designed for use with non-metallic sheathed cable in which an outer sheath surrounds two conductors with individual conductor insulation positioned side-by-side within the outer sheath and separated by an uninsulated conductor. Other designs of sheathed cables are used, however, and the profiles of the various cutting surfaces can be varied to accommodate other sheathed cables, such as an outer sheath surrounding three conductors with individual conductor insulation positioned side-by-side within the outer sheath together with an uninsulated conductor. Further, the guide surfaces **776'** and **788'** of the wire snipping and cutting tool **700'** could be substituted for the cutting surfaces **176** and **188** or the cutting surfaces **476** and **488** or the cutting surfaces **776** and **788** if it were desired to have the wire stripping and cutting tools **100**, **400**, and **700**, respectively, usable with separate, unsheathed conductors with individual conductor insulation. Still further, the wire stripping and cutting tools **100**, **400**, and **700** may be used with conductors that have individual conductor insulation and an outer jacket for each conductor, which outer jacket is formed of a material with different properties than the individual conductor insulation or is a different material than the individual conductor insulation. As used in this application, the word "sheath" includes such an outer jacket.

Although the cutting members **162** and **164**, the cutting members **192** and **194**, and the cutting members **222** and **224** of the wire stripping and cutting tool **100** are shown being attached to the first and second arms **112** and **114** with fasteners **172**, **184**, **202**, **214**, **232**, and **244** having heads configured to received a drive mechanism with a hexagonal drive tip, other fasteners with heads configured to receive other shapes of drive tips, such as a "Phillips" drive tip, can be used. In addition, while the fasteners **172**, **184**, **202**, **214**, **232**, and **244** are removable to permit the cutting members **162**, **164**, **192**, **194**, **222** and **224** to be removed and replace, the fasteners may be permanently or non-removable secured to the first and second arms **112** and **114** to prevent the cutting members from shifting or being removed and either replaced or re-attached incorrectly by the user. In this regard, the wire stripping and cutting tool **100** includes several positioning members **360** to help ensure that the cutting members **162**, **164**, **192**, **194**, **222** and **224** are properly positioned and held against rotation relative to the first and second arms **112** and **114**. In a similar manner, the outer sheath cutting surfaces **966** and **968**, the cutting surfaces **970** and **972**, the cutting surfaces **974** and **976**, the arcuate

cutting surfaces **978** and **980**, the clamping surfaces **986** and **988**, the cutting surfaces **974'** and **976'**, and the cutting surfaces **970** and **972'** may be formed on or in the first and second arms **712** and **714**, as shown, or may be formed on or in separate members that are either permanently or removable attached to the first, and second arms.

From the above description of the invention, those skilled in the art will perceive improvements, changes and modifications. Such improvements, changes, and/or modifications within the skill of the art are intended to be covered by the appended claims.

Having described the invention, the following is claimed:

1. An electrical conductor stripping and cutting tool comprising:

a first elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end to the distal end;

a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member, the second elongated member being joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other;

a first pair of cutting members mounted on the first and second elongated members, one of the first pair of cutting members being mounted on the first elongated member such that the pivot axis is disposed between said one of the first pair of cutting members and the proximal end of the first elongated member, the other of the first pair of cutting members being mounted on the second elongated member such that the pivot axis is disposed between said other of the first pair of cutting members and the proximal end of the second elongated member, each of the first pair of cutting members having an L-shape with a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the first pair of cutting members being presented toward the other cutting surface of the first pair of cutting members, the cutting surfaces of the first pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another; and

a second pair of cutting members mounted on the first and second elongated members, one of the second pair of cutting members being mounted on the first elongated member in a position between the proximal end of the first elongated member and the pivot axis, the other of the second pair of cutting members being mounted on the second elongated member in a position between the proximal end of the second elongated member and the pivot axis, each of the second pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the second pair of cutting members being presented toward the other cutting surface of the second pair of cutting members, the cutting surfaces of the second pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another,

the cutting surfaces of the first pair of cutting members being shaped and dimensioned to cut through material surrounding the electrical conductor without cutting the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members,

the cutting surfaces of the second pair of cutting members being shaped and dimensioned to cut through material surrounding an electrical conductor and also cut through the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members.

2. An electrical conductor stripping and cutting tool according to claim **1** further comprising a third pair of cutting members mounted on the first and second elongated members, one of the third pair of cutting members being mounted on the first elongated member in a position between the second pair of cutting members and the pivot axis, the other of the third pair of cutting members being mounted on the second elongated member in a position between the second pair of cutting members and the pivot axis, each of the third pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the third pair of cutting members being presented toward the other cutting surface of the third pair of cutting members,

the cutting surfaces of the first pair of cutting members being shaped and dimensioned to cut through material that is an outer sheath for at least one electrical conductor covered with individual conductor insulation without cutting through the individual conductor insulation and without cutting the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members,

the cutting surfaces of the third pair of cutting members being shaped and dimensioned to cut through both the outer sheath and the individual conductor insulation surrounding the electrical conductor without cutting the conductor when the conductor extends longitudinally from a position between the first pair of cutting members to a position between the second pair of cutting members.

3. A tool for stripping and cutting sheathed electrical cable according to claim **1** wherein the cutting members are removably mounted on the first and second arms.

4. A tool for stripping and cutting sheathed electrical cable, said cable including an outer sheath surrounding at least one electrical conductor covered with individual conductor insulation, said tool comprising:

a first elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end to the distal end;

a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member, the second elongated member being joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other;

a first pair of cutting members mounted an the first and second elongated members, one of the first pair of cutting members being mounted on one of the first and second elongated members, the other of the first pair of cutting members being mounted on the other of the first and second elongated members, each of the first pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the first pair of cutting members being presented toward the other cutting surface of the first pair of cutting members, the cutting surfaces of the first pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another;

a second pair of cutting members mounted on the first and second elongated members, one of the second pair of cutting members being mounted on one of the first and second elongated members, the other of the second pair of cutting members being mounted on the other of the first and second elongated members, each of the second pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the second pair of cutting members being presented toward the other cutting surface of the second pair of cutting members, the cutting surfaces of the second pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated, member and the proximal end of the second elongated, member move toward one another; and

a third pair of rutting members mounted on the first and second elongated members, one of the third pair of cutting members being mounted on one of the first and second elongated members, the other of the third pair of cutting members being mounted on the other of the first and second elongated members, each of the third pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the third pair of cutting members being presented toward the other cutting surface of the third pair of cutting members, the cutting surfaces of the third pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another,

the cutting surfaces of the first pair of cutting members being shaped and dimensioned to cut through the outer sheath of the sheathed electrical cable without cutting the individual conductor insulation covering the at least one electrical conductor and without cutting the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members,

the cutting surfaces of the second pair of cutting members being shaped and dimensioned to cut through the outer sheath of the sheathed electrical cable and through the individual conductor insulation covering the at least one electrical conductor without cutting the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members, and

the cutting surfaces of the third pair of cutting members being shaped and dimensioned to cut through (a) the outer sheath of the sheathed electrical cable, (h) the individual conductor insulation covering the at least one electrical conductor, and (c) the at least one electrical conductor when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members.

5. A tool for stripping and cutting sheathed electrical cable according to claim **4** wherein the one of the first pair of cutting members is mounted on the first elongated member in a position adjacent the distal end of the first elongated member, the other of the first pair of cutting members being mounted on the second elongated member in a position adjacent the distal end of the second elongated member, the one of the third pair of cutting members being mounted on the first elongated member in a position between the proximal end of the first elongated member and the pivot axis, the other of the third pair of cutting members being mounted on the second elongated member in a position between the proximal end of the second elongated member and the pivot axis, the one of the second pair of cutting members being mounted on the first elongated member in a position between the third pair of cutting members and the pivot axis, the other of the second pair of cutting members being mounted on the second elongated member in a position between the third pair of cutting members and the pivot axis.

6. A tool for stripping and cutting sheathed electrical cable according to claim **4** wherein the cutting members of the second pair of cutting members are mounted on the first and second elongated members such that the cutting surfaces of the second pair of cutting members begin to cut through the outer sheath of the sheathed electrical cable before the cutting surfaces of the third pair of cutting members begin to cut through (a) the outer sheath of the sheathed electrical cable, (b) the individual conductor insulation covering the at least one electrical conductor, or (c) the at least one electrical conductor and before the cutting surfaces of the first pair of cutting members begin to cut through the outer sheath of the sheathed electrical cable when the sheathed electrical cable extends longitudinally from a position between the first pair of cutting members to a position between the third pair of cutting members.

7. A tool for stripping and cutting sheathed electrical cable according to claim **4** wherein the cutting members are removably mounted on the first and second arms.

8. A tool for stripping and cutting sheathed electrical cable according to claim **4** further comprising a stop to limit movement of the proximal end of the first elongated member toward the proximal end of the second elongated member, the stop limiting movement of the proximal end of the first elongated member toward the proximal end of the second elongated member such that such that the cutting surfaces of the first pair of cutting members are limited to cutting through the outer sheath of the sheathed electrical cable and are prevented from cutting the individual conductor insulation covering the at least one electrical conductor and from cutting the at least one electrical conductor and such that the cutting surfaces of the second pair of cutting members are limited to cutting through (a) the outer sheath of the sheathed

electrical cable and (b) the individual conductor insulation covering the at least one electrical conductor and are prevented from cutting the at least one electrical conductor.

9. A tool for stripping and cutting a plurality of electrical conductors covered with individual conductor insulation, said tool comprising:

a first elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end to the distal end;

a second elongated member having a proximal end and a longitudinally opposite distal end and a length extending from the proximal end of the second elongated member to the distal end of the second elongated member, the second elongated member being joined to the first elongated member such that the first and second elongated members are pivotable about a pivot axis relative to each other;

a pair of guide members mounted on the first and second elongated members, one of the pair of guide members being mounted on one of the first and second elongated members, the other of the pair of guide members being mounted on the other of the first and second elongated members, each of the pair of guide members having a guide surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each guide surface of the pair of guide members being presented toward the other guide surface of the pair of guide members, the guide surfaces of the pair of guide members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another;

a first pair of cutting members mounted on the first and second elongated members, one of the first pair of cutting members being mounted on one of the first and second elongated members, the other of the first pair of cutting members being mounted on the other of the first and second elongated members, each of the first pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the first pair of cutting members being presented toward the other cutting surface of the first pair of cutting members, the cutting surfaces of the first pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another; and

a second pair of cutting members mounted on the first and second elongated members, one of the second pair of cutting members being mounted on one of the first and second elongated members, the other of the second pair of cutting members being mounted on the other of the first and second elongated members, each of the second pair of cutting members having a cutting surface oriented transverse to the length of the first elongated member and the length of the second elongated member, each cutting surface of the second pair of cutting members being presented toward the other cutting surface of the second pair of cutting members, the cutting surfaces of the second pair of cutting members moving toward one another upon pivotal movement of the first and second elongated members about the pivot axis relative to each other such that the proximal end of the first elongated member and the proximal end of the second elongated member move toward one another,

the cutting surfaces of the first pair of cutting members being shaped and dimensioned to cut through the individual conductor insulation covering each of the electrical conductors without cutting the electrical conductors when the electrical conductors extend longitudinally from a position between the pair of guide members to a position between the second pair of cutting members,

the cutting surfaces of the second pair of cutting members being shaped and dimensioned to cut through the individual conductor insulation covering each of the electrical conductors and through the plurality of electrical conductors when the electrical conductors extend longitudinally from a position between the pair of guide members to a position between the second pair of cutting members; and

the guide surfaces of the pair of guide members being shaped and dimensioned to guide the electrical conductors into a predetermined orientation relative to one another as the electrical conductors are extended lengthwise between the guide surfaces, the predetermined orientation being such that the cutting surfaces of the first pair of cutting members will cut through the individual conductor insulation covering each of the electrical conductors without cutting the electrical conductors.

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